# WELCOME TO THE GENERAL CATALOG OF THE UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

The effective dates of the 2024-25 edition of the catalog are June 17, 2024, through June 15, 2025.

# WELCOME FROM THE CHANCELLOR

Welcome to the University of California, San Francisco General Catalog.

The most exciting part of being at UCSF is its people, who bring diverse backgrounds, experiences, and perspectives to create a vibrant community where we can redefine what's possible.

Excellence is in our DNA. From genomics and immunology to specialty care for women and children, UCSF brings together the world's leading experts in nearly every area of health. We are home to five Nobel laureates who have advanced the understanding of cancer, neurodegenerative diseases, aging, stem cells, and the neuroscience of pain. Along with UCSF's hospitals, the educational programs in our schools of Dentistry, Medicine, Nursing, and Pharmacy, as well as in our Graduate Division, consistently rank among the best in the country, according to the latest surveys by *U.S. News & World Report*.

We are the leading university dedicated exclusively to the health sciences. Learn what it's like to be here and tour two of our main campuses (https://www.ucsf.edu/tour/), Parnassus and Mission Bay.

# **Disrupting the Status Quo for Good**

UCSF is part of the ten-campus University of California, the world's premier public research university system, and the only of its campuses dedicated to graduate and professional education. Driven by our public mission, we are a collection of dedicated scientists, clinicians, students, trainees, and staff who strive to make the world a better place through our singular focus on health and our commitment to diversity, equity, and inclusion. Compassion is as critical as discovery in fulfilling our mission to make a difference for individual patients and advance health worldwide.

# **Embracing a Sense of Urgency**

In a field where lives often hang in a delicate balance, UCSF recognizes that time is of the essence – for patients in the hospital and for vulnerable populations. We harness the efficiency of multidisciplinary teams to accelerate scientific progress and speed the development of new therapies and cures. We are constantly pushing forward the policies and partnerships that ensure that people in need are getting access to the most cutting-edge care and treatment.

# **Fostering a Culture of Innovation**

UCSF is San Francisco's second-largest employer, attracting talented faculty and staff who mirror the energy and diversity of the Bay Area. Drawing from the creative spirit of artists, entrepreneurs, and the tech industry, our ability to recruit exceptional learners, staff, faculty, and clinicians leads to a constant influx of new ideas and approaches.

Thank you for your interest in UCSF, where we are driven by the idea that when the best research, the best teaching, and the best patient care converge, we can deliver breakthroughs that help heal the world.

Sincerely,

Sam Hawgood, MBBS Chancellor Arthur and Toni Rembe Rock Distinguished Professor

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# **CONTACT INFORMATION**

Find contact information for each of the UCSF Schools and the Graduate Division below.

# **Graduate Division**

#### **Mailing Address:**

Graduate Division
University of California San Francisco
Campus Box 0523
1675 Owens St, Suite 310
San Francisco, CA 94143\*

\*Use the zip code above if you are sending us something by U.S. Mail. If you are shipping something to us via another service, like FedEx or UPS, then use 94158 instead.

Email: graduate.division@ucsf.edu

#### Questions about admissions or applying to a program?

Contact the appropriate program administrator (https://graduate.ucsf.edu/program-admins/).

# **School of Dentistry**

#### **Mailing Address:**

School of Dentistry Dean's Office University of California, San Francisco 513 Parnassus Avenue, S-630 San Francisco, CA 94143

**Telephone:** 415.476.1323

Fax: 415.476.4226

# **School of Medicine**

#### **Mailing Address:**

UCSF School of Medicine University of California, San Francisco 513 Parnassus Ave, Suite S-224 San Francisco, CA 94143-0410

Telephone: 415.476.2342

Find more contact information for the School of Medicine. (https://medschool.ucsf.edu/about/overview/contact-information/)

# **School of Nursing**

#### Mailing Address:

UCSF School of Nursing Student Affairs Office Campus Box 0602 2 Koret Way, N-319X San Francisco, CA 94143

If you would like to contact the School's Office of Student Affairs for questions about our nursing programs, you may call the general office line or email the office:

Telephone: 415.476.1435

Admissions support: nursingadmissionssupport@ucsf.edu

Fax: 415.476.9707

nursing.ucsf.edu (https://nursing.ucsf.edu/)

# **School of Pharmacy**

#### **Mailing Address:**

UCSF School of Pharmacy University of California, San Francisco Med Sci Box 0403 513 Parnassus Ave., Room S126 San Francisco CA 94143

Find more contact information for School of Pharmacy. (https://pharmacy.ucsf.edu/about/contact/)

# **Institute for Global Health Sciences**

#### **Mailing Address:**

UCSF Institute for Global Health Sciences Mission Hall, Box 1224 550 16th Street, Third Floor San Francisco, CA 94158

Email: education.globalhealth@ucsf.edu

# **FEES**

The tuition, fees, and charges posted on the Office of the Registrar website (https://registrar.ucsf.edu/registration/fees/) are estimates based on currently approved amounts. These figures may not be final. Actual tuition, fees, and charges are subject to change by the Regents of the University of California and could be affected by state funding reductions. Accordingly, final approved levels (and thus a student's final balance due) may differ from the amounts shown.

All the student fees except for registration fee deposit, Student Health and Counseling Supplemental Fee, Student Transit Pass fee, Instruments, Equipment and Supplies fee (for DDS), and late fees are refundable.

UCSF follows the established refund schedule set by UC Office of the President. Please see the refund schedule at registrar.ucsf.edu/registration/refunds (https://registrar.ucsf.edu/registration/refunds/).

New students who receive Title IV federal financial aid and withdraw during their first academic term after registration and prior to the 1  $^{\rm st}$  day of instruction receive 100% refund (less a maximum administrative fee of \$100 or 5% of the total charges assessed, whichever is less). The percentage of refund decreases for withdrawals after the first day of instruction, and there is no refund for withdrawals after the 42  $^{\rm nd}$  day of instruction.

Continuing, readmitted, and new students who do not receive federal financial aid and withdraw after registration and prior to the first day of instruction receive a 100% refund (less a service charge of \$10). The percentage of refund decreases for withdrawals after the first day of instruction, and there is no refund for withdrawals after the 35<sup>th</sup> day of instruction.

Some or all instruction for all or part of the Academic Year may be delivered remotely. Tuition and fees have been set regardless of the method of instruction and will not be refunded in the event instruction occurs remotely for any part of the Academic Year. Figures for tuition and fees represent currently approved or proposed amounts and may not be final. Actual tuition and fees are subject to change by the University of California as determined to be necessary or appropriate. Final approved tuition and fee levels may differ from the amounts presented.

# **GOVERNANCE**

The University of California, San Francisco sits within the University of California system. The University of California is governed by the 26-member Board of Regents, which has authority over university policies, financial affairs, tuition, and fees. The board appoints the university president.

Michael V. Drake President, University of California

# **UC San Francisco Leadership**

Sam Hawgood, MBBS Chancellor

Catherine R. Lucey, MD
Executive Vice Chancellor and Provost

#### **Deans and Directors**

Nicquet Blake, PhD Dean, Graduate Division Vice Provost, Student Academic Affairs

Carol Dawson-Rose, PhD, RN, FAAN Dean, School of Nursing Associate Vice Chancellor, Nursing Affairs

Kathy Giacomini, PhD, BSPHARM Dean, School of Pharmacy Associate Vice Chancellor, Pharmacy Affairs

Talmadge E. King Jr., MD Dean, School of Medicine Vice Chancellor, Medical Affairs

Michael Reddy, DMD, DMSc Dean, School of Dentistry Associate Vice Chancellor, Oral Health Affairs

Jaime Sepúlveda, MD, DSc, MPH Executive Director, Global Health Sciences

Chancellor's Cabinet (https://chancellor.ucsf.edu/leadership/chancellors-cabinet/)

# **SCHOOLS AND PROGRAMS**

- Graduate Division (p. 10)
- School of Dentistry (p. 13)
- School of Medicine (p. 14)
- School of Nursing (p. 22)
- · School of Pharmacy (p. 23)
- Institute for Global Health Sciences (p. 24)

# **Graduate Division**

Visit program website. (http://graduate.ucsf.edu)

# **Summary Description**

The Graduate Division is the home of graduate education and postdoctoral training at UCSF. We offer 20 PhD programs in basic, translational, and social/population sciences; 12 master's degree programs; and two professional doctorates. Over 1,000 postdoctoral scholars add to the robust research community on campus.

Graduate Division programs (p. 12) are housed within all four of the professional schools and Global Health Sciences at UCSF. The programs are almost all inter-disciplinary, creating a dynamic and synergistic atmosphere for research. Our award-winning faculty members deliver engaging courses and provide personalized mentorship for every student and postdoc.

Many of our graduate programs operate as interdisciplinary graduate groups. An Interdisciplinary Graduate Group is a graduate degree-granting program whose faculty members may come from multiple, different departments. Each graduate group is governed by one or more program directors together with an executive committee. Because they have no permanent faculty, membership in Interdisciplinary Graduate Groups is determined by the executive committees.

UCSF is among the top universities of its kind in the world and a key contributor to the Bay Area's well-deserved reputation as a hub of innovation, technology, and progressive influence. Our graduate students, postdocs, and faculty take advantage of year-round opportunities to learn from and engage with leaders and ground-breakers in the community.

Read more about what we do (https://graduate.ucsf.edu/about/).

# Policies on Leaves and Withdrawals Leaves of Absence/Honorable Withdrawal

The university may grant you permission for **leave of absence** or **honorable withdrawal** if you are in good standing but do not want to retain your class status.

If you do not register, you must petition for either a leave of absence or a withdrawal. Otherwise, your student status will lapse, and the Graduate Division will instruct the registrar to change the status to administrative withdrawal. A leave of absence may be granted for one academic year and is subject to approval by your graduate adviser and the dean of the Graduate Division. After one year has passed, you must submit a request for an extended leave, which must be approved by your graduate adviser. Extensions are limited to no more than one additional academic year. No further extension can be granted. You must return to registered status or forfeit your place in your program. Forfeiture occurs after your absence lapses after one year with no contact from you, at which point you will be administratively withdrawn.

Students are in good standing if they are not subject to academic probation or disqualification, professional disqualification, or disciplinary disqualification. You can petition for honorable withdrawal or leave of absence online in the student portal (https://saa.ucsf.edu/studentportal/). However, before starting the online process, please consult with your school or program, Student Health and Counseling Services, and, if applicable, the Student Financial Aid Office and the International Students and Scholars Office to discuss your plans, as withdrawal and

leave of absence may have consequences for your academic plans, health insurance, financial aid and loans, and any visa.

For a leave of absence, you can select a readmission term at the time you request the leave of absence. We encourage you to indicate your readmission term because, otherwise, a leave of absence may affect access to electronic systems (https://registrar.ucsf.edu/registration/withdrawal/access/). If you do not know your readmission term, please apply for readmission (https://registrar.ucsf.edu/registration/readmission/) once your quarter of return is certain.

Learn how withdrawal and leave of absence may affect access to electronic systems (https://registrar.ucsf.edu/registration/withdrawal/access/).

#### **Veterans**

Some veterans may be eligible for special benefits upon readmission:

- The same enrollment status and academic standing in the same program into which they were previously admitted;
- Enrollment Into classes in the next term beginning after the student applies for readmission;
- In the academic year of readmission, the same tuition and fee charges that the student would have been assessed if the student had not left UCSF for military service.

To be eligible for these benefits, veterans must:

- Write on their withdrawal petition that military service is the reason for the leave of absence;
- · Not be absent for more than five years;
- Submit a petition for readmission and, upon submitting that petition, provide documentation of military service.

#### Parental Leave

Registered PhD students receiving financial support from the University may take *up to ten weeks* of *paid* parental leave in relation to childbirth, the adoption of a child, or the placement of a foster child under their care. PhD students shall continue to receive their current level of support during the ten weeks of paid parental leave regardless of the fund source. In the event the fund source does not provide ten full weeks of paid leave, it shall be the responsibility of the student's graduate program to provide the additional funding required. (New parents will also want to see information on Graduate Division childcare grants (https://graduate.ucsf.edu/childcare-grants/).)

# **Medical/Family Leave**

Registered PhD students may take *up to four weeks* of paid leave in relation to their own serious health condition or to care for a family member who has a serious health condition. For the purpose of this leave policy "family member" is defined as one's mother, father, sister, brother, parent-in-law, spouse, domestic partner, parent of domestic partner, grandparent, grandchild, child, step or foster child (including children of domestic partner).

Students receiving financial support from the University, regardless of the funding source, shall continue to receive their current level of support during this period. In the event the fund source does not provide four weeks of paid leave, it shall be the responsibility of the student's graduate program to provide the additional funding required.

# **Unpaid Leave**

To augment either period of paid leave above, registered PhD students may take *up to two* additional weeks of *unpaid* leave upon the approval of their program. This revised policy (effective September 1, 2014) supersedes policies of funding agencies, departments, and programs. Note that the parental leave policy at UCSF currently exceeds that of other UC campuses. For questions regarding graduate student health insurance coverage for medical expenses related to pregnancy and delivery, please contact Student Health Services (https://studenthealth.ucsf.edu/), phone 415.476.1281.

# Readmission

A student on leave of absence must petition for readmission in order to register again as a graduate student. The petition for readmission is available online from the Office of the Registrar (https://registrar.ucsf.edu/forms/). Readmission requires the approval of the graduate adviser and the dean of the Graduate Division. A non-refundable \$40 fee is charged when the readmission form is filed. Students must observe the registrar's deadlines for filing a petition for readmission. For readmission, the following signatures of approval must be obtained in the following order:

- a. Student Health Services
- Director/graduate adviser (nursing students obtain signature of director of student affairs)
- c. Dean of the Graduate Division

# **Policy on Student Progress**

**Please note:** The following policy, approved April 30, 2018, applies to all PhD and master's programs at UCSF.

# Criteria for satisfactory academic progress in PhD programs

#### **Students in Year One**

First-year students should meet with their graduate advisers once a quarter. Student progress is assessed at the end of the year on the basis of course grades and performance, rotation reports (for lab-based programs), and program-specific exams (for medical anthropology and sociology). Indicators of unsatisfactory progress include, but are not limited to, substandard work or unprofessional conduct in the lab/research environment (as reported by the PI), or failing grades in any courses (see list of examples below).

#### **Students in Year Two**

Second-year students should meet with the graduate adviser or lab PI once a quarter. Indicators of unsatisfactory progress in year two (as in year one) include, but are not limited to, substandard work or unprofessional conduct in the lab/research environment (as reported by the PI), failing grades in any courses (see list of examples below). In programs with qualifying exams taken by the end of year two, students are also evaluated on their progression toward, timely scheduling of, and then successful completion of the qualifying exam.

#### Students in Year Three and Beyond

In programs with qualifying exams taken in year three, students are evaluated on their progression toward, timely scheduling of, and then successful completion of the qualifying exam. Students in years three and beyond may also be considered to be making unsatisfactory progress according to any of the indicators listed below.

Students should form their dissertation committee in a timely manner. Not submitting the names of committee members to the program within 6 months of passing the qualifying exam will be considered an indicator of unsatisfactory progress, except in extraordinary circumstances. In lab-based programs, students are expected to schedule meetings with their dissertation committee at least once a year.

Students are expected to complete all degree requirements within normative time for their program.

#### Unsatisfactory progress indicators may include, but are not limited to:

- · Falling below a 3.0 GPA
- · Failing grades in any course
- · Failure to find a lab after four rotations (for lab-based programs)
- Unsatisfactory work in the lab (rotation or thesis, as reported by the PI)
- Unprofessional conduct in the lab/research environment (rotation or thesis, as reported by the PI)
- · Failing the qualifying exam the first time
- Failure to submit dissertation chapters in a timely fashion (for social science programs)
- · Issues in academic misconduct and professionalism infractions

**Note:** Disciplinary problems and other infractions that fall within the scope of UCSF's Policy on Student Conduct and Discipline (https://studentlife.ucsf.edu/student-conduct-and-discipline/) will be referred for consideration by UCSF's director of student rights and responsibilities.

# Criteria for Satisfactory Academic Progress in Master's Programs

Students should meet with their advisers once a quarter. Student progress is assessed at the end of each quarter on the basis of course grades and performance in the program.

Unsatisfactory progress indicators are determined by each individual program. These may include, but are not limited to:

- · Failing an exam
- · Failing grades in any course
- · Falling below a 3.0 GPA
- Failure to achieve milestones toward the capstone requirement (where applicable)
- · Unsatisfactory work in the clinic (where applicable)
- · Unprofessional conduct
- Issues in academic misconduct and professionalism infraction

**Note:** Disciplinary problems and other infractions that fall within the scope of UCSF's Policy on Student Conduct and Discipline (https://studentlife.ucsf.edu/student-conduct-and-discipline/) will be referred for consideration by UCSF's director of student rights and responsibilities.

# Process by which Failing Students will be Notified and Remediated

Students whose progress is unsatisfactory (according to one or more of the criteria listed above) will be notified and will meet with the adviser and the program director to develop an individualized remediation plan to address the deficiencies. The meeting results in a memorandum

of understanding that clearly outlines specific steps and associated deadlines that the student must fulfill in order to receive a satisfactory report. The report is then signed by the following parties: the student, the primary adviser, and the program director. At this point, the report is filed in the student's academic file within the program, and a copy is sent to the associate dean for graduate programs.

Should the student be unable to fulfill the expectations according to the timeline outlined in the letter, the student will be subject to dismissal from the program. Depending on the student's standing in the program, PhD candidates may be allowed to leave with a terminal master's degree.

The process for in-depth review of a student's eligibility for dismissal will follow the UCSF Divisional Procedure for Student Grievance in Academic Affairs, section 4.0 (https://senate.ucsf.edu/appendix-VII/), and will be conducted by the program's in-depth committee.

# Composition of the In-depth Review Committee, Should one be Necessary

Each program determines the composition of its in-depth review committee, which shall consist of at least three members. In most instances, it consists of faculty members on the executive committee.

# **Conduct Dismissal**

When a student is found in violation of University policies or campus regulations, any of the types of student disciplinary actions outlined in the Policy for Student Conduct and Discipline may be imposed (https://studentlife.ucsf.edu/student-conduct-and-discipline/#Types%20of%20Student%20Disciplinary%20Action). Any sanction imposed should be appropriate to the violation, taking into consideration the context and seriousness of the violation.

# **Academic Dismissal**

Dismissal for academic failures is at senate.ucsf.edu/appendix-VII (https://senate.ucsf.edu/appendix-VII/).

# Conduct

The entire Policy on Student Conduct and Discipline is publicly available on the UCSF Student Life web site at studentlife.ucsf.edu/student-conduct-and-discipline (https://studentlife.ucsf.edu/student-conduct-and-discipline/).

# **Doctoral**

- Biochemistry and Molecular Biology (Tetrad) (PhD) (p. 30)
- Bioengineering (PhD) (p. 32)
- · Biological and Medical Informatics (PhD) (p. 36)
- · Biomedical Sciences (PhD) (p. 40)
- · Biophysics (PhD) (p. 42)
- · Cell Biology (Tetrad) (PhD) (p. 44)
- Chemistry and Chemical Biology (PhD) (p. 46)
- · Computational Precision Health (PhD) (p. 51)
- Developmental and Stem Cell Biology (PhD) (p. 53)
- · Doctor of Physical Therapy (DPT) (p. 66)
- · Epidemiology and Translational Science (PhD) (p. 69)
- · Genetics (Tetrad) (PhD) (p. 76)
- · Global Health Sciences (PhD) (p. 83)
- · History of Health Sciences (PhD) (p. 93)

- · Medical Anthropology (PhD) (p. 106)
- · Neuroscience (PhD) (p. 109)
- Nursing (DNP) (p. 111)
- Nursing (PhD) (p. 115)
- · Nursing Practice (Post-BSN) (p. 121)
- · Oral and Craniofacial Sciences (PhD) (p. 124)
- Pharmaceutical Sciences and Pharmacogenomics (PhD) (p. 127)
- · Rehabilitation Science (PhD) (p. 138)
- · Sociology (PhD) (p. 140)

# Master's

- Artificial Intelligence and Computational Drug Discovery and Development (MS) (p. 28)
- · Biomedical Imaging (MS) (p. 38)
- · Clinical and Epidemiologic Research (MAS) (p. 48)
- · Genetic Counseling (MS) (p. 74)
- · Global Health Sciences (MS) (p. 78)
- Health Data Science (MS) (p. 89)
- Health Policy and Law (MS) (p. 91)
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- Nursing (MS) (p. 113)
- · Nursing Master's Entry Program (p. 118)
- · Oral and Craniofacial Sciences (MS) (p. 123)
- · Translational Medicine (MTM) (p. 142)

# Certificate

- · Advanced Training in Clinical Research (Certificate) (p. 26)
- · Equity in Brain Health (Certificate) (p. 73)
- · Health Data Science (Certificate) (p. 88)
- Interprofessional Health Post-Baccalaureate Certificate Program in Dentistry (p. 99)
- Interprofessional Health Post-Baccalaureate Certificate Program in Medicine (p. 102)
- Interprofessional Health Post-Baccalaureate Certificate Program in Pharmacy (p. 104)

# **School of Dentistry**

Visit program website. (https://dentistry.ucsf.edu/)

# **Summary Description**

Founded in 1881, the UCSF School of Dentistry is a world-renowned institution of oral and craniofacial health, advancing the field through excellence in education, service, research and patient care. It offers top-ranked graduate and postgraduate programming and boasts a multidisciplinary research enterprise that covers basic, translational, clinical and implementation sciences. Regularly ranked the top dental school in the country in NIH research funding, the UCSF School of Dentistry continues to progress not only oral health but also overall health in local communities and beyond.

# **Policies**

Engagement and Absence

- Engagement Policy (https://wiki.library.ucsf.edu/display/ SODEducation/Engagement+Policy/)
- Assisting and Attendance in Predoctoral Dental Student Clinics (https://wiki.library.ucsf.edu/display/SODEducation/Assisting+and +Attendance+in+Predoctoral+Dental+Student+Clinics/)
- General Absence Procedures (https://wiki.library.ucsf.edu/display/ SODEducation/General+Absence+Procedures/)

#### **Leaves and Withdrawals**

- Parental Leave Policy (https://wiki.library.ucsf.edu/display/ SODEducation/Parental+Leave+Policy/)
- Religious Accommodation Guidelines (https://wiki.library.ucsf.edu/ display/SODEducation/Religious+Accommodation+Guidelines/)
- Short Term Leave of Absence Procedures (https:// wiki.library.ucsf.edu/display/SODEducation/Short+Term+Leave+of +Absence+Procedures/)
- Withdrawal and Leave of Absence Policy (https:// wiki.library.ucsf.edu/display/SODEducation/Withdrawal+and+Leave +of+Absence+Policy/)

# **Grading**

- Academic Grading Policy (https://wiki.library.ucsf.edu/display/ SODEducation/Academic+Grading+Policy/)
- Academic Grading Definitions (https://wiki.library.ucsf.edu/display/ SODEducation/Academic+Grading+Definitions/)
- Academic Grading Appeals Procedures (https://wiki.library.ucsf.edu/ display/SODEducation/Academic+Grading+Appeals+Procedures/)

# **Remediation and Formal Guidance Plans**

- Flowchart Course Progression (https://wiki.library.ucsf.edu/display/ SODEducation/FlowChart-Course+Progression/)
- Student Progress and Remediation Policy (https:// wiki.library.ucsf.edu/display/SODEducation/Student+Progress+and +Remediation+Policy/)

#### **Student Status Committee and Global Assessment**

- Progression Through the Curriculum (https://wiki.library.ucsf.edu/ display/SODEducation/Progression+Through+the+Curriculum/)
- Financial Aid Satisfactory Academic Progress Policy (https://wiki.library.ucsf.edu/display/SODEducation/Financial+Aid+Satisfactory+Academic+Progress+Policy/)

 Probation and Dismissal Procedures (https://wiki.library.ucsf.edu/ display/SODEducation/Probation+and+Dismissal+Procedures/)

#### **Professionalism**

- Statement of Professional Behavior (https://wiki.library.ucsf.edu/ display/SODEducation/Statement+of+Professional+Behavior/)
- Honor Code and Clinic Pledge (https://wiki.library.ucsf.edu/display/ SODEducation/Honor+Code+and+Clinic+Pledge/)
- Procedures for Handling Breaches of Professionalism (https://wiki.library.ucsf.edu/display/SODEducation/Procedures+for+Handling+Breaches+of+Professionalism/)
- Flowchart for Handling Breaches of Professionalism (https://wiki.library.ucsf.edu/display/SODEducation/Flowchart+for+Handling+Breaches+of+Professionalism/)
- Health and Safety Compliance Policy (https://wiki.library.ucsf.edu/ display/SODEducation/Health+and+Safety+Compliance+Policy/)
- Sexual Harassment (Title IX) and Other Harassment (https://wiki.library.ucsf.edu/display/SODEducation/Sexual+Harassment+%28Title+IX%29+and+Other+Harassment/)
- Non-Discrimination and Anti-Harassment Policies and Procedures (https://wiki.library.ucsf.edu/display/SODEducation/Non-Discrimination+and+Anti-Harassment+Policies+and+Procedures/)
- UCSF Policy on Student Conduct and Discipline (https://wiki.library.ucsf.edu/display/SODEducation/UCSF+Policy+on+Student+Conduct+and+Discipline/)

Please visit the School of Dentistry Education Handbook (https://wiki.library.ucsf.edu/display/SODEducation/SOD+Education+Home%3A+Student+Handbook%2C+Policies+and+Procedures/) for a full list of policies and procedures.

# **Doctoral**

- · Doctor of Dental Surgery (DDS) (p. 55)
- · International Dentist Pathway (DDS) (p. 95)
- · Oral and Craniofacial Sciences DDS/PhD Program (p. 126)

# Certificate

- Dentistry Postgraduate Program Certificate (p. 52)
- Postgraduate Program in Dental Public Health Certificate (p. 129)
- Postgraduate Program in Oral Medicine Certificate (p. 130)
- · Postgraduate Program in Orthodontics Certificate (p. 132)
- Postgraduate Program in Pediatric Dentistry Certificate (p. 134)
- · Postgraduate Program in Periodontology Certificate (p. 136)

# Resident

- · General Practice Residency (p. 149)
- · Oral and Maxillofacial Surgery Residency (p. 165)

# **Fellowship**

• Dentistry Preceptorships and Fellowships (p. 149)

# **School of Medicine**

Visit program website. (https://medschool.ucsf.edu/)

# **Summary Description**

# **About the School of Medicine**

Consistently ranked among the nation's top medical schools
(https://www.ucsf.edu/news/2019/03/413571/ucsf-schoolmedicine-ranks-us-news-best-graduate-schools-top-five-ten-years/?
utm\_source=SoM&utm\_medium=SoM&utm\_campaign=2019\_bestgradschools&utm\_term=),
the UCSF School of Medicine earns its greatest distinction from its
outstanding faculty – among them are five Nobel laureates, 101 National
Academy of Medicine members, 64 American Academy of Arts and
Sciences members, 51 National Academy of Sciences members, and 17
Howard Hughes Medical Institute investigators.

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#### Mission

The UCSF School of Medicine strives to advance human health through a fourfold mission of education, research, patient care and public service.

### **History**

Founded in 1864 as Toland Medical College, the school joined the University of California in 1873, and in 1898, moved to its present Parnassus Heights campus. The first UC hospital opened here in 1907, eventually growing into Moffitt-Long Hospitals and later Benioff Children's Hospital. These facilities, together with Mount Zion Hospital, now comprise the UCSF Medical Center.

UCSF faculty have also treated patients and trained students at Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center since 1873 and at the San Francisco VA Medical Center for over 50 years. UCSF is affiliated with a number of other hospitals in the Bay Area and Fresno, including Children's Hospital Oakland.

### **Recent Accomplishments and Innovations**

- 2021: School of Medicine ranked (https://www.ucsf.edu/ news/2021/03/420146/us-news-best-grad-school-rankings-2022/) #4 in research and #2 in primary care by U.S. News & World Report.
- 2019: School of Medicine ranked (https://www.ucsf.edu/ news/2019/03/413571/ucsf-school-medicine-ranks-us-news-bestgraduate-schools-top-five-ten-years/) #5 in research and #3 in primary care by U.S. News & World Report.
- 2018: UCSF Fresno established (https://www.ucsf.edu/ news/2018/07/411066/ucsf-establishes-ucsf-fresno-branch-campusucsf-school-medicine/) as a branch campus of the UCSF School of Medicine.
- 2017: Fifteen UCSF researchers named to the first cohort of Chan Zuckerberg Biohub Investigators.
- 2016: The new Priscilla and Mark Zuckerberg San Francisco General Hospital and Trauma Center opens.
- 2015: UCSF Medical Center opens new women's, children's and cancer hospitals at Mission Bay.
- 2015: UCSF ranks second again in clinical medicine (https://www.ucsf.edu/news/2015/08/131306/ucsf-ranks-among-top-world-universities-2015-rankings/) in the annual Academic Ranking of World Universities.
- 2012: Nobel Prize awarded to UCSF's Shinya Yamanaka (https://www.ucsf.edu/news/2012/10/104393/shinya-yamanaka-wins-2012-nobel-prize-medicine/) for the discovery of how to transform ordinary adult skin cells into stem cells.

- 2011: Opening of the UCSF Teaching and Learning Center (https://edtech.ucsf.edu/teaching-learning-center/) including the Kanbar Simulation Center (https://meded.ucsf.edu/kanbar-center-simulation-and-clinical-skills/).
- 2010: UCSF educators release Educating Physicians: A Call for Reform of Medical School and Residency.
- 2009: Nobel Prize awarded to UCSF's Elizabeth Blackburn (https://www.ucsf.edu/news/2009/10/410881/ucsfs-elizabeth-blackburn-receives-nobel-prize-physiology-or-medicine/) for the discovery of the key enzyme telomerase.

Comprehensive list of UCSF achievements and milestones (https://www.ucsf.edu/about/achievements/) going back to 1914.

Find out more at medschool.ucsf.edu/about-school (https://medschool.ucsf.edu/about-school/).

# **Policies**

The Guidelines and Policies for medical students at UCSF can be found online at Medical Student Policies (https://meded.ucsf.edu/about-us/guidelines-policies/medical-student-policies/). The Policies section features the regulatory mandates that students need to follow for institutional and/or compliance reasons. Unless otherwise indicated, all UCSF Medical Student Policies also apply to UCSF medical students who are conducting their learning at regional campuses. The Guidelines represent the deans' recommended approaches to the items below based on their years of experience. Each Guideline also includes instructions for how to request a different approach based on individual circumstances. For your convenience, links to policies of particular relevance to the following areas of interest are given below.

#### **Absences**

#### Foundations 1 Overview

The Foundations 1 (F1) phase of the Bridges Curriculum evaluates student competency and progress through a range of assessments, a number of which involve complex logistics for faculty, staff, and facilities. This policy takes into account:

- The desire to provide flexibility where possible for students with personal exigent life events (e.g., religious observance, family obligations, professional commitment) that coincide with scheduled assessments.
- · Consideration of students' need for assessment preparation.
- The availability of faculty, staff, and facilities for assessments.
- · The importance of maintenance of assessment security.

#### **Principles**

- a. Predictable and unpredictable personal and professional events can arise for individual students that conflict with scheduled assessments. UCSF SOM policy and procedures allow for students to request to reschedule assessments, for faculty and staff to consider the requests on a case-by-case basis, and for decisions about rescheduling, where possible, to be made that are fair and consistent across students and the curriculum.
- o. To minimize academic risk, assessments should not be rescheduled to times that overlap with ongoing curricular activities, or at times that would significantly reduce student ability to prepare for the assessment.
- c. Students are accountable for.

- · Completing all required assessments.
- Communicating professionally in advance about the perceived need to reschedule an assessment.
- · Monitoring their on-time attendance.
- · Accurately managing their schedules.

#### **Policy**

- a. Students may request the rescheduling of an F1 assessment activity for exigent non-emergency reasons. Requests are considered on a case-by-case basis and decisions made based on precedent and circumstances unique to the student, the time point in the curriculum, and the logistics of the assessment.
- b. A student who is unable to complete an assessment because of an unforeseen illness or personal/family issues must notify the relevant faculty director and staff member as soon as possible, preferably before the assessment begins and, if not possible before, within 24 hours after the scheduled exam start time, using the contact information available on the Bridges Faculty (https:// meded.ucsf.edu/md-program/current-students/curriculum/bridgesfaculty/) page.
- c. A student with a pattern of recurrent assessment rescheduling requests may be counseled by a faculty member or dean and may receive a Professionalism/Physicianship (https://meded.ucsf.edu/ policies-procedures/physicianship-policy/) evaluation.
- d. CMC clinical skills standardized patient examinations generally cannot be rescheduled.
- e. Exam viewings will not be held for individual students outside of the time scheduled in advance for the entire class, except in cases described below.

Foundations 1 Policy on Assessment Absence and Rescheduling (https://meded.ucsf.edu/policies-procedures/foundations-1-policy-assessment-absence-and-rescheduling/)

#### Foundations 2

#### **Purpose**

To outline the attendance policy for each of the components of F2 (clinical and classroom-based), including how to give notice of an absence (either in advance or emergently), and what make-up work is expected for absences.

**Note:** Students requesting an absence from components of F2 should submit their request here (https://ucsf.co1.qualtrics.com/jfe/form/SV\_8dfouJ4OU19XZWd/).

#### Overview

Foundations 2 is the second phase of the Bridges curriculum when students will complete core clinical clerkships as well as revisit foundational science concepts and learn about diagnostic testing in a recurring educational day (IDS 113). Students will also have the opportunity to enroll in short clinical electives (CIExes) to explore a variety of clinical specialties beyond the core clerkships. In this phase of the curriculum, the student assumes new and central roles as a provider of patient care and a member of a clinical team. In addition, students will form new learning communities in IDS 113 (Foundational Sciences in Foundations 2) as well as participate in learning and assessment activities in ARCH weeks 5&6.

To fulfill these important responsibilities, attendance and punctuality become markers for the core competency of professionalism. It is recognized there may be circumstances that will require students to miss entire days or parts of a day.

#### **Definitions**

IDS 113 or FS in F2: Foundational Sciences day in Foundations 2 is one day every other week students take a day out of their clinical clerkships to participate in classroom sessions to revisit core foundational science concepts relevant to their clinical experiences.

CIExes: Clinical Immersive Experiences are primarily 2-week electives which give students an opportunity to explore areas of interest outside of the core clerkships.

ARCH: The Assessment, Reflection, Coaching and Health weeks are required weeks where students reconvene on the main campus to participate in assessment activities, sessions to help them reflect and focus on their overall progress and well-being, and meetings with their coach.

Excused Absences: Approved absences for one of the following circumstances:

- Emergent Absences: absences of at least one full day that result from significant healthcare issue or family events (family emergency, etc.)
- Planned Absences: absences of at least one full day that are requested in advance to participate in planned activities such as attendance at a national meeting or family celebratory event.
- Planned Absences because of Accommodations for Protected
  Disabilities: Institutionally approved alterations in the conduct of a
  rotation to allow students with protected disabilities to fulfill their
  educational requirements, including the need to excuse oneself from
  the clinical environment for ongoing health care needs.
- Preventive/Routine Care Absences: absences of less than ½ a day to address preventive or routine health care issues.

#### **Principles**

- a. The primary responsibility of the students during the Foundations 2 phase of the curriculum is to successfully master the material required to earn a passing grade in all core and elective clerkships as well as in the IDS 113 course and ARCH weeks.
- Student wellbeing and professional development are interdependent with competency development and professional identity formation.
- c. Unforeseen, emergent issues and planned absences and preventive/ healthcare brief absences will be accommodated within reason to support students' needs, mindful of the importance of continuity of learning, achievement of required competencies for the curriculum and minimizing disruption to patients and the clinical care delivery team.
- d. Learning to optimize personal health and manage personal illness within the confines of a clinical care environment based on teamwork is a critical aspect of professional identity formation and patient care skills
- Institutionally sanctioned accommodations should be respected in the clinical learning environment, to the extent desired by the student.

#### **Policy**

- a. During the Core Clerkships:
  - One day of excused absence is allowed in 4 weeks of a clinical clerkship.
  - At the discretion of the clerkship Director and on a case-by-case basis, make-up activity may be required for any missed days.
  - iii. Students whose absences interfere with their learning and demonstration of necessary competencies will be required to make up lost time and possibly repeat all, or part of, the clerkship.
- b. During the Clinical Immersive Experiences:

- i. One excused absence is allowed for every 4 weeks of CIExes.
- For absences exceeding 1 day/4 weeks, the CIEx will need to be repeated.
- c. During IDS 113: Foundational Sciences in Foundations 2 (FS-in-F2):
  - i. One excused absence is allowed during the course in addition to the days missed during scheduled vacation (2 days).
  - ii. Make-up activity will be required for absences exceeding the allowed number (i.e., more than 3 total absences).
- During the Family and Community Medicine (FCM) longitudinal core clerkship:
  - Two excused absences are allowed (one day of clinic and one day of FCM seminar) in addition to the 2 days of scheduled vacation.
  - ii. Make-up activity will be required for absences exceeding the allowed number (i.e., 3 or more total absences).
- e. During the ARCH Weeks 5 and 6:
  - i. One excused absence is allowed in either ARCH week but not in both
  - No absence will be pre-approved for when a student is scheduled for an assessment.
  - Make-up activities for any missed assessment activity due to emergency circumstances will be required and other missed activities may require make up.
- f. Absences for routine scheduled health care appointments of less than 2 hours do not need approval but do require notification of the clinical care delivery team. No more than one routine health care appointment should be scheduled during any element of F2 (i.e. each core clerkship, electives, IDS 113, Longitudinal FCM, ARCH week). Students who require absences for health care appointments at greater frequency than this should consult with the Associate Dean for Students for guidance.
- g. Students are responsible for notifying clinical care delivery teams about planned and health care absences in advance of the absence and for informing their clerkship director about emergent absences as soon as practical.
- Accommodations for protected disabilities will be provided during the clerkships if requested in advance by the student, in accordance with UCSF procedures on informing faculty about accommodations. Accommodations for protected disabilities cannot be applied retroactively.

Foundations 2 Attendance Policy (https://meded.ucsf.edu/policies-procedures/foundations-2-attendance-policy/)

#### **Career Launch**

#### **Purpose**

To outline the attendance policy for each of the components of Career Launch (clinical and classroom-based), including how to give notice of an absence (either in advance or emergently), and what make-up work is expected for absences.

**Note:** Students requesting an absence from classroom-based components of Career Launch (IDS 119: Introduction to Career Launch, IDS 120: Designing and Conducting Research, ARCH weeks 7&8, and IDS 115: Coda), should submit their request here. For clinical components of Career Launch, students should discuss any absence requests with their clerkship director and/or clinical team.

#### Overview

Career Launch is the final, highly individualized phase of the Bridges curriculum, lasting 61 weeks. Students have dedicated time to complete scholarly projects while they pursue advanced clinical training

(Advanced Core Skills, Advanced Electives, and a longitudinal outpatient preceptorship or SPAN). In this phase of the curriculum, students will become central providers of care in their sub-internships and their SPAN outpatient preceptorship, as well as pursue electives that will enhance their clinical skills. They will form learning communities with their inquiry advisor, complete the IDS 120 (DCR), IDS 119 (ICL), and IDS 115 (Coda) courses, as well as participate in learning and assessment activities in ARCH weeks 7&8. Most students will also be finalizing their career choices and interviewing for residency positions.

To fulfill these important responsibilities, attendance, punctuality and time management continue to be markers for the core competency of professionalism. It is recognized there will be circumstances that will require students to miss entire days or parts of days.

#### **Principles**

- a. The primary responsibility of students during the Career Launch (CL) phase of the curriculum is to successfully complete CL requirements in preparation for their chosen career pathway.
- Student professional development and wellbeing are interdependent with competency development and professional identity formation.
- c. Learning to optimize and manage personal health within the confines of the learning and clinical care environments is a critical aspect of professional identify formation and patient care skills.
- d. Allocating time and managing planned absences are important skills that students must learn to deploy to successfully fulfill both curricular goals and personal career planning.
- e. Institutionally sanctioned accommodations should be respected in the CL learning environments.

#### Policy

- a. The primary responsibilities of the students during the Career Launch phase of the curriculum are to successfully master the material required to earn passing grades in all clinical rotations (Advanced Core, Elective Skills, SPAN), the curricular components, (IDS 119 or ICL, IDS 120 or DCR and IDS 115 or Coda) and ARCH Weeks. Students are also required to meet the inquiry project requirements.
- b. Students' professional development and well-being will require planned absences including absences for interviews, meetings, and scheduled health care appointments. In addition, unexpected absences may be necessary. These absences will be accommodated within reason to support students' needs, mindful of the importance of continuity of learning, achievement of required competencies for the curriculum and minimizing disruption to patients and the clinical care delivery team.
- c. Students will be responsible to manage their personal schedules and health care needs to fit within the confines of their learning environments and to comply with the reporting requirements.
- d. Course and rotation directors will respect Institutional sanctioned accommodations to the extent desired by the student.

Career Launch Attendance Policy (https://meded.ucsf.edu/policies-procedures/career-launch-attendance-policy/)

#### Leaves

# Temporary or Permanent Separation of Students from the School of Medicine

- A. Temporary Separation of Students from the School of Medicine: Leaves of Absence
  - Voluntary Leaves of Absence: a temporary separation of a student from the School of Medicine, with the expectation that the student will return to the School of Medicine within an

assigned timeframe, subject to the approval of a designated UME Associate Dean.

- Voluntary Leaves of Absence may be granted in accordance with School of Medicine policies under the following circumstances:
  - Programmatic Leaves of Absence may be granted to allow students to participate in educational experiences at UCSF or other institutions or to appropriately time their graduation.
  - 2. Personal Leaves of Absence may be granted if a student requests time off for personal issues.
- ii. Involuntary Leaves of Absence: An involuntary leave of absence is a separation of a student from the School of Medicine for reasons related to performance, with the expectation that a student will return to School of Medicine within an assigned timeframe having addressed performance issues.
  - 1. Mandated Leaves of Absence
    - The Committee on Academic Standards may mandate a leave of absence for a student whose academic progress is unsatisfactory, as described in the UCSF Academic Senate Bylaws Appendix VII: 4.0 Step 2: In-Depth Review and Dismissal Action.
    - In exigent circumstances, a designated associate dean may mandate a leave of absence for a student whose academic progress is unsatisfactory.
  - 2. Administrative Leave of Absence
    - The Dean or designee may place a student on Administrative Leave of Absence if a student has engaged in or is alleged to have engaged in behavior that is dangerous or deleterious to the educational, research, clinical, or community environment.
- iii. Return to the School of Medicine Following a Leave of Absence
  - The School of Medicine may require that a student on a leave of absence meet specific criteria to reenter the curriculum.
     The Committee on Academic Standards or a designated associate dean may identify these criteria. Such criteria may include but are not limited to:
    - The requirement that a licensed professional attest that the student is able to meet the UCSF Technical Standards
    - 2. The requirement for the student to meet specific academic readiness criteria.
  - 2. Failure to meet required criteria may result in discontinuation without notice.
  - Regardless of the nature of the leave, all students must return from one or more leaves of absence in time to meet the School of Medicine time to graduation requirements.

See section VIII.A of the Academic Senate Regulations of the Faculty of the School of Medicine (https://senate.ucsf.edu/appendix-IV/#regulations)

#### Withdrawals

Withdrawal is a voluntary action taken by a student that results in permanent separation from the School of Medicine.

 a. Students may request a Withdrawal in Good Academic Standing if they would otherwise be eligible to continue in the curriculum.

- iv. Students who withdraw in good academic standing are eligible to apply for readmission in accordance to School of Medicine readmission policy.
- Students who are eligible for dismissal may only request a Withdrawal Not in Good Academic Standing.
  - Students who withdraw Not in Good Academic Standing are ineligible for readmission.
- Withdrawal decisions are voluntary and thus are not eligible for appeal.

See section VIII.B.4 of the Academic Senate Regulations of the Faculty of the School of Medicine (https://senate.ucsf.edu/appendix-IV/#regulations)

#### Readmission

#### **Purpose**

To clarify the eligibility of and procedures for a student who requests readmission to the UCSF School of Medicine.

#### Overview

UCSF prides itself in its recruitment of talented and passionate students who exemplify the characteristics and qualities necessary to become outstanding physicians. The standard UCSF MD program is a four-year, three-phase curriculum. Medical students also have the opportunity to combine their MD program with other degree-based or research activities that increase the time-span of their time to the MD degree in a predicable amount. In some instances, due to academic or personal difficulties; a student may request to withdraw from the program. UCSF recognizes extenuating circumstances and supports readmission of eligible students to complete their degree.

#### **Principles**

- a. The criteria for readmission to the School of Medicine should mirror the standards applied to all applications for admission to the School, including in particular.
  - i. evidence of outstanding academic performance; and
  - ii. personal attributes required for the practice of medicine.
- b. There should be evidence, if there were patterns of academic performance and behavior that led to the withdrawal, that they have been addressed and resolved.

#### **Policy**

- a. Eligibility for Readmission
  - Only those who voluntarily withdraw from the UCSF School of Medicine while on good academic standing are eligible to apply for readmission.
- b. Petitioning for Readmission
  - Any student desiring readmission must discuss this plan with the Associate Dean for Students prior to submitting a petition for readmission
  - Petitions for readmission will be accepted no earlier than one full academic quarter after the date of the withdrawal and no later than four quarters following withdrawal, unless previously agreed upon by the School.
  - A student seeking readmission must submit a letter requesting readmission to the Associate Dean for Students. The petition letter should:
    - · Request readmission
    - Describe the rationale for the decision to withdraw, including an assessment of any academic, health, or personal

- challenges present leading up to or at the time that the student decided to withdraw.
- Outline, in detail, all activities since leaving medical school, emphasizing those that the former student has undertaken in preparation for a return to the medical curriculum.
- Describe how the former student has addressed any academic issues that contributed to the decision to withdraw and how the student's approach to medical school will differ upon readmission in contrast to the approach that the student used prior to withdrawing from school.
- Describe the resolution or status of any personal or health issues that may have affected medical school performance or how the student will meet technical standards with or without accommodations for any protected disability.
- In addition to the letter, the following documents may be submitted in support of the student's application for readmission.
  - If course work is completed during the time away from medical school, transcripts of grades will be required.
  - Up to two letters of recommendation in support of readmission will be accepted, but not required.
- c. Procedures for evaluating the petition for readmission
  - An ad hoc Committee on Readmission will be constituted. The Committee membership is as follows; all have voting rights and all (or a designee approved by the Vice Dean for Education) must be present to participate in the decision-making process.
    - · Associate Dean for Admissions (chair of the Committee)
    - · Associate Dean for Curriculum
    - Chair of the Faculty Council's Committee on Academic Standards
    - · One faculty member in a curriculum leadership role
    - · One faculty member at large
  - The ad hoc Committee on Readmission will consider the following information:
    - The student's letter requesting readmission, along with any other documents submitted by the student.
    - A report summarizing the student's academic history during the time of their previous enrollment. This report will be prepared by the Medical Education Assessment team.
    - The committee may decide to interview the student in person; this is not a mandatory component of the readmissions process.
  - The Committee will, by simple majority, decide on one of the following recommendations to the Vice Dean for Education:
    - · Readmission to the curriculum without conditions
    - Readmission to the curriculum on academic probation, with required remediation including repetition of elements of the curriculum.
    - Deferred decision pending resolution of ongoing issues
    - · Denial of readmission
  - The final decision about readmission resides with the Vice Dean for Education. That decision will be communicated to the student in writing by email or other method. The decision may not be appealed.
- d. Conditions in the event of readmission
  - A student who is offered the opportunity for readmission cannot defer the readmission to another quarter or academic year.
  - Students who are readmitted following a withdrawal must complete the curriculum that is operational at the time of their

- readmission. This may require that the student repeat previous coursework.
- Stipulations for academic progress will be outlined for any student who is readmitted following a withdrawal. This may require that the student repeat previous coursework.
- A student is only eligible for readmission with advanced standing following a withdrawal once.

Readmissions Policy (https://meded.ucsf.edu/policies-procedures/readmissions-policy/)

# **Academic Probation**

#### **Student Academic Standing**

- a. There are three categories of student academic standing:
  - d. Good Academic Standing
    - 1. A student is considered to be in good academic standing if eligible to return to or continue in the curriculum.
  - e. Good Academic Standing on Academic Probation
    - 1. A student whose performance is described in one of the following ways is on Academic Probation:
      - 1. A student has earned E or F grade(s) in coursework totaling six or more credit units in any quarter.
      - 2. A student has earned E or F grade(s) in coursework totaling 10 or more credit units in 3 consecutive quarters.
      - A student has received Physicianship Evaluation Forms in excess of the number allowed by UCSF School of Medicine Policy.
    - Students on Academic Probation are eligible to continue in the curriculum and are considered to be in good academic standing.
    - 3. The status of Academic Probation will remain in effect until removed by definitive action of the Committee on Academic Progress, under the following circumstances:
      - A student on academic probation resulting from E or F grades who successfully repeats all educational experiences in which a grade of E or F was received and who then earns P or H grades in all coursework in a subsequent quarter of school.
      - A student on academic probation resulting from excessive Physicianship Evaluation Forms who completes a subsequent three quarters of enrollment without additional Physicianship Evaluation Forms

See section VII.D.1.b of the Academic Senate Regulations of the Faculty of the School of Medicine (https://senate.ucsf.edu/appendix-IV/#regulations)

#### **Dismissal**

- Dismissal is an academic action taken by the School of Medicine that permanently separates the student from the School of Medicine.
  - i. Dismissal may occur for any of the following reasons:
    - Student receives a non-passing grade while on academic probation.
    - 2. Student meets criteria for dismissal due to a pattern of unprofessional behavior as evidenced by excessive physicianship evaluation forms.
    - Student is unable to meet the Technical Standards of the School of Medicine with or without institutionally approved accommodations.

- Failure to seek or to use institutionally approved accommodations will not be accepted as sufficient grounds for circumventing this adverse academic action.
- Student's pace of progress in the MD curriculum precludes the completion of all required coursework for the degree of Doctor of Medicine within the maximum time to graduation designated by UCSF School of Medicine policy.
- Students are entitled to appeal a dismissal decision in accordance with the UCSF Academic Senate Bylaws Appendix VII Section 5.0 Appeal.
- Students dismissed from the School of Medicine are not eligible for readmission.

See section VIII.B.3. of the Academic Senate Regulations of the Faculty of the School of Medicine (https://senate.ucsf.edu/appendix-IV/#regulations)

### **Grading**

#### Foundations 1

#### Overview

The approach to assessment of student performance in the Bridges Curriculum is a program of assessment that is integrated across the curriculum beyond any one subject or course and which embraces the philosophy of assessment for learning. Integrated courses along with integrated assessments and grades encourage students to connect all of the knowledge and skills they are learning in the classroom and in clinical settings, just as a physician integrates knowledge and skills in patient care. The Bridges Curriculum program of assessment promotes each student's individual path toward competence in the unique knowledge, skills, and attitudes that characterize the Bridges physician. In the assessment for learning philosophy, assessment activities contribute significantly to student learning by giving each student ongoing information (data and other feedback) about performance that is key to guiding their individual next steps in the UCSF MD competencies and milestones (https://meded.ucsf.edu/md-program/current-students/ curriculum/md-competency-milestones/).

Seven core competencies and associated milestones define the expectations for students throughout the curriculum. Frequent formative assessments will guide students' future learning, promote reflection, and help shape students' values about continuous improvement of their practice of medicine.

The School has developed several key resources to support student learning and professional development:

- Coaches: Learning and professional development is supported throughout medical school by mentorship and guidance from Coaches (https://meded.ucsf.edu/md-program/current-students/ curriculum/bridges-faculty/coaching-program/). Each student is assigned a clinician educator Coach who provides advising and mentoring, teaches foundational clinical skills, and supports the student in reviewing individual progress and setting learning goals.
- Dashboard: The Bridges Student Dashboard houses performance data for each student and provides space for students to reflect on progress with their Coach and to generate individual learning plans.
   Students take responsibility for the mastery of skills and knowledge with frequent receipt of information in their dashboard, regularly reflecting on ways to improve, and seeking additional practice.
- ARCH Weeks: Assessment, Reflection, Coaching, and Health (ARCH)
   Weeks (https://meded.ucsf.edu/md-program/current-students/ curriculum/foundations-1/arch-weeks/) are four weeks in the

- Foundations 1 phase of the Bridges Curriculum that provide students dedicated time for reflection on competency development, enable learning planning with Coaches, and provide opportunities for consolidation and integration of learning.
- Frequent formative assessment activities: Weekly Checkpoints for medical knowledge throughout Foundations 1 promote learning and self-assessment. Weekly, students complete multiple choice questions (MCQs) and open-ended questions (OEQs) designed to confirm if students have achieved the expected level of competency with the material for the week. The Weekly Checkpoints have additional benefits because the act of testing has a positive direct impact on learning. Numerous studies suggest the active process of retrieving information from memory strengthens memory more and leads to longer retention than re-studying or reviewing material: this phenomenon is called "the testing effect."

#### **Principles**

Student assessment in the Bridges Curriculum is designed to meet multiple goals:

- a. Provide ongoing feedback to students about their learning
- b. Promote deep learning, critical thinking, retention of knowledge, and habits of inquiry aligned with the Bridges Curriculum mission
- c. Provide opportunities for frequent formative feedback
- d. Determine that students have attained by graduation the knowledge, skills, and attitudes at a level of mastery necessary to provide highquality care
- e. Prepare students to excel on USMLE licensing exams
- f. Provide timely grades within 6 weeks of the end of each course.

#### **Policy**

- a. Weekly Checkpoints: Students are required to complete the required number of weekly checkpoint MCQs and OEQs assigned by the course, as requirements in the Practice-Based Learning and Improvement competency.
- b. Small Group Evaluations: Each F1 course includes assessments by small group leaders of students' performance in multiple competency domains in Foundational Science and Core Inquiry Curriculum (CIC) groups. Faculty assess students using a performance rubric with numerical scores and a narrative description of the student's performance.
- c. Summative Medical Knowledge Assessments: Summative assessments of medical knowledge will occur at the end of each Foundations 1 Foundational Science (FS) block and in some cases at mid-point in an FS block. These summative assessments will consist of open-ended questions (OEQs). The OEQs on the summative assessments are similar in format to the Weekly Checkpoint OEQs and emphasize application of knowledge (rather than recall of facts alone), critical thinking, and written communication skills.
- d. Grading: In Foundations 1, students receive one grade for each of the Interdepartmental Studies (IDS) courses (https://meded.ucsf.edu/ current-students/). This grade integrates student performance in all elements within the IDS course, including the Clinical Microsystem Clerkship (CMC), Foundational Science (FS) block(s), the Core Inquiry Curriculum (CIC), and ARCH Weeks.
- All grades are returned to students within six weeks of the end of the course.

Foundations 1 Grading and Assessment Policy (https://meded.ucsf.edu/policies-procedures/foundations-1-grading-and-assessment-policy/)

# Foundations 2 and Career Launch Grading and Assessment Policy Purpose

To outline student assessment in courses/clerkships in the clinical setting in Foundations 2 and Career Launch phases of the Bridges Curriculum.

#### Overview

UCSF students are expected to achieve competence on the graduation milestones by the time they complete medical school. For each UCSF competency, UCSF has developed milestones that students are expected to achieve by defined time points in the four-year curriculum. In Foundations 2 and Career Launch clerkships, students' progress in particular competency domains is assessed through a variety of methods within each clerkship or course and longitudinally. Criteria for achievement of competence within each clerkship or course and competency domain are defined by the faculty.

#### **Principles**

- a. The standard of achievement is a "Pass." Passing a clerkship clinically demonstrates working knowledge and application of that knowledge in patient care. Passing performance is demonstrated on clerkship evaluations submitted in the electronic evaluation system by supervising residents and attendings, written examinations, other assignments, assessment of professional behavior, and any other required learning activities including makeup work for missed sessions.
- Students must demonstrate mastery of core medical knowledge in core clerkships as demonstrated on clerkship examinations.
- Students in longitudinal integrated clerkships must make satisfactory progress over Foundations 2.

#### **Policy**

#### **Assessment and Grades**

- All core clerkships (as of January 2019; see information on core clerkship grading change here (https://meded.ucsf.edu/md-program/ current-students/curriculum/foundations-2/core-clerkshipsassessment-and-grading/)), two-week clinical electives, and nonclinical electives are graded Pass/Incomplete/Provisional Non-Pass/ Fail; Honors is not available in these courses.
- Most four-week advanced clinical courses in Career Launch are graded Honors/Pass/Incomplete/Provisional Non-Pass/Fail (H/P/I/E/F).
- Off-campus clerkships are graded as Pass/Fail only, and are not eligible for Honors.
- Supervising faculty and residents complete evaluations of students including numerical ratings and narrative comments.
- Summary evaluations of student performance in all required clerkships include numerical ratings and narrative comments about performance across competencies, compiled by the clerkship director working with the grading committee.
- The Incomplete "I" grade is assigned when a student's work is of
  passing quality, but incomplete for a valid reason. The provisional
  non-passing "E" grade is assigned when a student's work is
  below passing quality. Remediation is required for a non-passing
  performance. Requirements to convert an I or E grade to a "P" grade
  are established by the course director.
- Students in longitudinal integrated clerkships (LICs) meeting the standard of achievement receive "In Progress" (IP) grades in the Registrar's system during the LIC. At the conclusion of the LIC, students are assigned a grade for each clerkship completed within the LIC. For any student whose work is below passing quality in one or more disciplines during the year, the LIC course directors assign

- a provisional non-passing grade that is equivalent to 6 or more units of the "Provisional Non-Passing" (E) grade for that quarter and has the same academic consequences as receiving an E grade in non-LIC courses.
- For details about associated academic consequences, please see
  the Satisfactory Academic Progress Policy (https://finaid.ucsf.edu/
  application-process/eligibility/satisfactory-academic-progressmedicine/) and Academic Senate School of Medicine bylaws (https://
  senate.ucsf.edu/appendix-IV/) (section VII. School of Medicine
  Student Progress Requirements).

#### **Clerkship Exams**

- Students who do not pass a core clerkship examination on the first attempt but otherwise pass the clerkship clinically receive an I (incomplete) grade for the clerkship.
- Students who do not pass a core clerkship examination on the second attempt but otherwise pass the clerkship clinically receive an E (provisional non-passing) grade for the clerkship.

#### **Grade Timeliness**

 It is the clerkship director's responsibility to return all clerkship summary evaluations and grades to students within 38 days of the end of the clerkship.

#### **Assessments Outside of Individual Clinical Rotations and Courses**

- All students are required to take 2 standardized patient (SP) clinical performance exams during Foundations 2/Career Launch: the Mini-CPX and CPX (https://meded.ucsf.edu/clinical-performance-examcpx/). Passage of the CPX is a graduation requirement.
- Students who have not yet taken the USMLE Step 1 examination are required to take the CBSE (Comprehensive Basic Science Examination) during an ARCH Week.

#### **Accommodations for Students with Disabilities**

 Clerkship directors are committed to providing academic accommodations for students with disabilities. To be eligible for accommodations for clerkship or assessment activities on the basis of a disability, students must provide documentation from Medical Student Disability Services well in advance of the clerkship.

Foundations 2 and Career Launch Grading and Assessment Policy (https://meded.ucsf.edu/policies-procedures/foundations-2-and-career-launch-grading-and-assessment-policy/)

#### Conduct

# Professional Behavior Expectations for UCSF Medical Students Purpose

To outline professional expectations for medical students

#### **Principles**

- Students must demonstrate professional behavior expected of a medical student and physician in training.
- Students deserve timely and specific feedback about areas for improvement in the professionalism competency.
- Faculty discussing professionalism feedback need to understand the professional expectations for students.
- · Students must achieve the UCSF professionalism milestones.

#### **UCSF School of Medicine Professional Expectations**

Students are expected to demonstrate the professional and personal attributes for meeting the standards of professionalism inherent in being a physician, as outlined in the UCSF MD competency milestones

(https://meded.ucsf.edu/md-program/current-students/curriculum/md-competency-milestones/) and detailed below.

- a. Meet professional responsibilities
  - · The student can be relied upon to communicate effectively.
  - The student fulfills responsibilities that are essential to being a medical student at UCSF without repeated reminders (ie: responding to emails, completing immunization or USMLE exams by the required dates.)
  - The student completes essential responsibilities and assigned tasks by the prescribed deadline.
  - The student represents actions and information accurately and truthfully.
- b. Effort toward self-improvement and adaptability
  - · The student accepts criticism.
  - · The student demonstrates awareness of their own inadequacies.
  - · The student considers and makes needed changes.
  - The student accepts blame for failure and responsibility for errors.
  - · The student is professional and respectful during times of stress.
  - · The student demonstrates humility.
- Relationships with administrators, faculty, staff, colleagues, patients, or families.
  - The student behaves in an appropriate manner with administrators, faculty, staff, colleagues, patients, and families.
  - The student respects professional boundaries in interactions with administrators, faculty, staff, colleagues, patients, and families.
  - The student functions effectively within a healthcare team.
  - The student is sensitive to the needs, feelings, and wishes of the healthcare team members.
  - The student demonstrates sensitivity to the needs and wishes of patients and families.
  - The student adequately establishes rapport with patients or families.
  - The student avoids using their professional position to engage in inappropriate romantic or sexual relationships with patients and members of their families.
  - The student demonstrates empathy.
- d. The student upholds the Medical Student Statement of Principles:

#### Honesty

- · I will maintain the highest standards of academic honesty.
- I will neither give nor receive aid in examinations or assignments unless such cooperation is expressly permitted by the instructor.
- I will be truthful with patients and will report accurately all historical and physical findings, test results, and other information pertinent to the care of the patient.
- I will conduct research in an unbiased manner, report results truthfully, and credit ideas developed and work done by others.

#### **Respect for Others**

- · I will uphold a classroom atmosphere conducive to learning.
- I will treat patients and their families with respect and dignity both in their presence and in discussions with other members of the health care team.
- I will interact with patients in a way that ensures their privacy and respects their modesty.

- I will interact with all members of the health care team in a considerate and cooperative manner.
- I will not tolerate discrimination on the basis of race, gender, religion, sexual orientation, age, disability, or socioeconomic status.
- I will judge my colleagues fairly and attempt to resolve conflicts in a manner that respects the dignity of every person involved.

#### Confidentiality

- I will regard confidentiality as a central obligation of patient care.
- I will limit discussions of patients to members of the health care team in settings removed from the public ear (e.g. not in elevators, hallways, cafeterias).
- I will uphold all privacy policies and laws including but not limited to those in accordance with the Health Insurance Portability and Accountability Act (HIPPA).

#### Responsibility

- · I will set patient care as the highest priority in the clinical setting.
- I will recognize my own limitations and will seek help when my level of experience is inadequate to handle a situation on my own.
- I will conduct myself professionally-in my demeanor, use of language and appearance-in the presence of patients, in the classroom, and in health care settings.
- I will not use alcohol or drugs in any way that could interfere with my clinical responsibilities.
- I will not use my professional position to engage in romantic or sexual relationships with patients or members of their families.

#### **Expectations of Faculty, Residents, and Fellows**

- I have the right to expect clear guidelines regarding assignments and examinations, as well as to have testing environments that are conducive to academic honesty.
- I cannot be compelled to perform procedures or examinations which I feel are unethical or beyond the level of my training.
- I have the right to not be harassed and to not be subjected to romantic or sexual overtures from those who are supervising my work.
- I have the right to be challenged to learn, but not abused or humiliated.
- I have the right to expect prompt, frequent and constructive feedback from housestaff and attending physicians that will enhance my training in medicine.

Professional Behavior Expectations for UCSF Medical Students (https://meded.ucsf.edu/about-us/guidelines-policies/medical-student-policies/professional-behavior-expectations-ucsf-medical-students/)

# **Doctoral**

· Doctor of Medicine (MD) (p. 59)

# Master's

• UCSF/UC Berkeley Joint Medical Program (p. 144)

# **School of Nursing**

Visit program website. (https://nursing.ucsf.edu/)

# **Summary Description**

As a vital part of a world-renowned health sciences campus, the UCSF School of Nursing fosters excellence, diversity and innovation in everything we do. Our rich history and dynamic present give ample proof of the global health care leadership we continue to provide. Our faculty members serve in advisory and leadership capacities in policy, health care delivery, and clinical and translational research.

Separated by only a courtyard, School of Nursing faculty and students work closely with campus partners on joint research, patient care and education initiatives. Our students come from around the world. While here they combine their varied perspectives and fresh ideas with attentive mentoring and rigorous coursework to prepare for desperately needed leadership roles in patient care, research, health policy and academia. Our graduate specialties consistently rank among the best in *U.S. News & World Report* assessments of professional graduate programs.

# **History**

It was over a century ago – 1907 – that the University of California first established a diploma program at the hospital training school for nurses in San Francisco. Ever since, the School of Nursing has been an exemplar of excellence and innovation.

We offered our first baccalaureate program on the Berkeley campus in 1917 and our first graduate program for public health nursing in 1918. In 1939 the Regents established the first autonomous School of Nursing in any state university.

By mid-century, we established a number of master's programs and, in 1965, our first doctoral programs.

In 1991, we created our Master's Entry Program in Nursing, a three-year program during which we prepare promising students without prior nursing education for both RN licensure and a master's degree.

The graduates of these programs – and the faculty who have trained them – have consistently been among the nation's leaders in clinical care, policy development, nursing research, and academia. Through a century in which nursing and health care always seemed to be in the midst of dramatic change – with our vision firmly fixed on the patients and families we serve – what became the UCSF School of Nursing in 1959 has remained, proudly, at the forefront of our profession.

# **Accreditation Information**

The Doctor of Nursing Practice program and the Master of Science degree program with a focus in nursing, both at UCSF, are accredited by the Commission on Collegiate Nursing Education (https://www.aacnnursing.org/CCNE/).

The Nurse-Midwifery/WHNP specialty at UCSF is fully accredited by the Accreditation Commission for Midwifery Education (http://www.midwife.org/acme/) (ACME), 8403 Colesville Road, Suite 1550, Silver Spring, MD 20910-6374. For information about accreditation, please contact ACME directly by calling 240-485-1802 or by email at acme@acnm.org.

The UCSF School of Nursing graduate programs meet requirements set by the California Board of Registered Nursing (BRN) (https://www.rn.ca.gov/):

- The Nurse Practitioner specialties conform to the Board's
   "Standards of Education for Nurse Practitioner Programs" (California
   Code of Regulations Section 1484 (https://govt.westlaw.com/
   calregs/Document/I78166E70FAEE11DEAB9F840E8C11CEE5/?
   viewType=FullText&originationContext=documenttoc&transitionType=CategoryFand have been approved by the BRN.
- The Clinical Nurse Specialist specialities conform to the Board's requirements for Clinical Nurse Specialist Certification but are not formally approved by the BRN.
- The Certified Nurse-Midwifery specialty conforms to the Board's
   "Standards for Nurse-Midwifery Programs" (California Code of
   Regulations Section 1462 (https://govt.westlaw.com/calregs/
   Document/IB167D4B0D48E11DEBC02831C6D6C108E/?
   viewType=FullText&originationContext=documenttoc&transitionType=CategoryF
   and has been approved by the BRN.

# **Policies**

The UCSF School of Nursing programs operate within the UCSF Graduate Division. Please see the Graduate Division page (p. 10).

# **Doctoral**

- Nursing (DNP) (p. 111)
- Nursing (PhD) (p. 115)
- · Nursing Practice (Post-BSN) (p. 121)
- · Sociology (PhD) (p. 140)

# Master's

- Healthcare Administration and Interprofessional Leadership (MS) (n. 86)
- Nursing (MS) (p. 113)
- · Nursing Master's Entry Program (p. 118)

# Certificate

• Nursing Post-Master's Certificate Program (p. 120)

# **Fellowship**

· Nurse Practitioner Fellowship Programs (p. 160)

# **School of Pharmacy**

Visit program website. (https://pharmacy.ucsf.edu/)

# **Summary Description**

As the oldest school of pharmacy in the West, the UCSF School of Pharmacy has a long history of accomplishment in science, patient care, and in training tomorrow's PhD researchers and PharmD clinicians.

Our faculty is advancing innovative therapeutics-related science, guiding the most creative PhD scientists-in-the-making, and preparing Doctor of Pharmacy (PharmD) (https://pharmd.ucsf.edu/) students to think critically. We are steering the direction of research and health care delivery outside academia, working as pharmacists on health teams in groundbreaking ways, caring for patients through new approaches, and empowering patients with the information they need to make the best personal choices about medications.

The dean's office and the school's three departments work toward these ends in different but complementary ways:

- a. The Department of Pharmaceutical Chemistry (https:// pharmchem.ucsf.edu/) explores fundamental biological mechanisms and molecules of therapeutic relevance for better health, empowered by novel technologies at the interface of chemistry, physics, and computational sciences.
- b. The Department of Bioengineering and Therapeutic Sciences (https://bts.ucsf.edu/) explores the complex processes of biology and applies these findings and bioengineering advances to the development and rational use of precise therapeutics to improve health.
- c. The Department of Clinical Pharmacy (https:// clinicalpharmacy.ucsf.edu/) advances the precise, safe, and effective use of therapeutics to improve health.
- d. The Dean's Office (https://pharmacy.ucsf.edu/deans-office/) ensures the school has the strategic agenda, operational framework, and resources required to succeed.

Faculty in all three departments teach and mentor graduate students, including those in the school's PharmD degree program (https://pharmd.ucsf.edu/) and the five PhD degree programs (https://qbc.ucsf.edu/) administered by the school.

# **Policies**

#### Withdrawals/Leave of Absence/Readmission Policies

This purpose of this policy is to define the processes pertaining to UCSF pharmacy students who leave the school through withdrawal, leave of absence, dismissal, or discontinuation and who subsequently seek readmission to the PharmD program.

See the full policy on withdrawals, leave of absence, and readmission (https://pharm.ucsf.edu/current/policies/readmission/).

# **Academic Standing/Probation/Dismissal**

The purpose of this policy is to outline the criteria that constitutes good academic standing, the criteria under which a student may be placed on academic probation and the criteria that leads to a review of a student's academic record for consideration of dismissal. The Committee on Academic Standards and the Sub-Committee on Student Progress oversees implementation of this policy.

See the full policy on academic standing, probation, and dismissal (https://pharm.ucsf.edu/current/policies/academic-standing-probation-dismissal/).

# **Grading**

The purpose of this policy is to outline student assessment evaluation of performance and subsequent grading in the PharmD curriculum. This policy applies to all faculty and staff contributing to the PharmD curriculum and all students enrolled in the UCSF PharmD program.

See the full policy on grading (https://pharm.ucsf.edu/current/policies/grading/).

# **Conduct**

As future health care professionals and health science researchers, UCSF students are held to high standards of behavior, particularly in matters of ethics, judgment, and professionalism. As such, student conduct is often directly relevant to a student's academic performance. Matters relating to student conduct are therefore initiated by the deans of the schools and Graduate Division (or their designees). The dean shall be made aware of alleged misconduct and determine whether to utilize either

- a. procedures related to academic professionalism standards or
- student conduct procedures. Both avenues allow for informal or formal resolution of the issue(s).

Any breach of professionalism as defined in the standards below will be addressed via the process outlined therein.

Violations of policies outlined in Policies Applying to Campus Activities, Organizations and Students (PACAOS) (https://www.ucop.edu/student-equity-affairs/policies/pacaos.html) 102.00 may result in the initiation of student conduct procedures.

If it is unclear which procedure is relevant to a particular situation, please consult with the associate dean. Initiation of one procedure does not preclude the use of the other resolution or investigation options.

See the full policy on conduct (https://pharm.ucsf.edu/current/policies/conduct/).

# **Doctoral**

· Doctor of Pharmacy (PharmD) (p. 64)

# Resident

· Pharmacy Residency Program (p. 169)

# **Fellowship**

- Clinical Pharmacology and Therapeutics Postdoctoral Training Program (p. 148)
- UCSF-Genentech Clinical Development Fellowship (p. 172)

# **Institute for Global Health Sciences**

Visit program website. (https://globalhealthsciences.ucsf.edu/)

# **Summary Description**

Our students embody our passion for advancing health worldwide. They bring leadership, dedication and curiosity to solving the world's most pressing health problems.

The Master of Science in Global Health Sciences (p. 78) is designed for those who wish to gain global health knowledge, skills, and experience through an interdisciplinary curriculum that emphasizes research methods, population health, and the social, economic, and environmental determinants of health in a globalized world. The master's curriculum covers themes in Foundations of Global Health, Scientific Methods, Diseases and Determinants, and Health Systems and Policy. Students completing this degree will be prepared for a career in research, policy, organizational leadership, academia, or program management and evaluation.

Lectures, seminars, case studies, debates, and team-based projects introduce students to critical aspects of global health practice. The learning environment is dynamic and emphasizes faculty involvement, peer teaching, problem-solving, and discussion.

A centerpiece of the program is each student's individual capstone project, conducted in locations around the world, which emphasizes study design, practicalities of field research, and cultural humility. This project allows students to obtain depth of expertise in a specific topic and method.

The PhD in Global Health Sciences (p. 83) is a transdisciplinary program that prepares students to work in and contribute to the field of global health by providing a range of perspectives on global health challenges and solutions. Students are trained in research methods and modes of inquiry drawn from public health, public policy, economics, development studies, implementation science, and the social sciences, to prepare them to address health problems of global importance. Graduates are equipped for careers in academia, policy, and organizational leadership.

The program is structured as a four-year degree. Students spend the first two years in residence at the UCSF Mission Bay campus (https://www.ucsf.edu/about/locations/mission-bay/) engaged in coursework, research rotations, and teaching residencies. After completing the core curriculum and passing the qualifying examination, students spend the next two years focused on conducting their dissertation research and engaging in other research and professional growth activities under the guidance of research advisers and faculty mentors.

The UCSF Institute for Global Health Sciences (IGHS) was established in 2003 by Haile T. Debas to provide institutional leadership for global health at UCSF. Reporting directly to the chancellor, IGHS is an interdisciplinary educational, research and service organization dedicated to improving health and reducing the burden of disease in the world's most vulnerable populations.

# **Policies**

The Institute for Global Health Sciences operates within the UCSF Graduate Division. Please see the Graduate Division page (p. 10) for policies.

# **Doctoral**

· Global Health Sciences (PhD) (p. 83)

# Master's

· Global Health Sciences (MS) (p. 78)

# **ACADEMIC PROGRAMS**

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- · Advanced Training in Clinical Research (Certificate) (p. 26)
- Artificial Intelligence and Computational Drug Discovery and Development (MS) (p. 28)

# B

- · Biochemistry and Molecular Biology (Tetrad) (PhD) (p. 30)
- Bioengineering (PhD) (p. 32)
- · Biological and Medical Informatics (PhD) (p. 36)
- · Biomedical Imaging (MS) (p. 38)
- · Biomedical Sciences (PhD) (p. 40)
- · Biophysics (PhD) (p. 42)

# C

- · Cell Biology (Tetrad) (PhD) (p. 44)
- · Chemistry and Chemical Biology (PhD) (p. 46)
- · Clinical and Epidemiologic Research (MAS) (p. 48)
- · Computational Precision Health (PhD) (p. 51)

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- Developmental and Stem Cell Biology (PhD) (p. 53)
- · Doctor of Dental Surgery (DDS) (p. 55)
- · Doctor of Medicine (MD) (p. 59)
- · Doctor of Pharmacy (PharmD) (p. 64)
- Doctor of Physical Therapy (DPT) (p. 66)

# E

- Epidemiology and Translational Science (PhD) (p. 69)
- · Equity in Brain Health (Certificate) (p. 73)

# G

- Genetic Counseling (MS) (p. 74)
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- · Global Health Sciences (PhD) (p. 83)

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- · Health Data Science (Certificate) (p. 88)
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- Nursing (MS) (p. 113)
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- · Oral and Craniofacial Sciences (MS) (p. 123)
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#### P

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#### R

• Rehabilitation Science (PhD) (p. 138)

# S

· Sociology (PhD) (p. 140)

#### Т

· Translational Medicine (MTM) (p. 142)

# U

• UCSF/UC Berkeley Joint Medical Program (p. 144)

# Advanced Training in Clinical Research (Certificate)

Visit program website. (https://epibiostat.ucsf.edu/advanced-training-clinical-research/)

Degree Offered: Certificate Program Leadership: Elaine Ku, MS, MAS, Director Admissions Inquiries:

Clair Dunne, Program Administrator

# **Program Description**

Advanced Training in Clinical Research (ATCR) Certificate Program (https://epibiostat.ucsf.edu/advanced-training-clinical-research/) is a four academic quarter (Summer, Fall, Winter, and Spring — ten calendar months) program consisting of fifteen required courses and a variety of electives that provide detailed instruction in the methods of clinical research and ongoing methodologic guidance as scholars begin to implement their research projects.

# **Admission Requirements**

Possession of an undergraduate degree from an accredited institution with a minimum grade point average (GPA) of 3.0 (equal to a letter grade of "B"). Preference will be given to scholars who have demonstrated knowledge or experience in some aspect of a health-related field (e.g., clinical practice, public health, health promotion) by virtue of either possession of a graduate or professional doctoral degree (MD, DDS, PharmD, PhD or international equivalent), being currently enrolled in such a program, or relevant work experience. Although not required, this prior knowledge or experience is preferred because program scholars will be required to perform original research in an area of their choosing to fulfill graduation requirements. Prior substantive knowledge or experience in a health-related field can be very helpful in identifying a research area of interest and in maintaining motivation for the work.

Established relationship with a research mentor at UCSF, defined as a faculty member in either of the Schools of Medicine, Nursing, Pharmacy, or Dentistry. Scholars already at UCSF should have this established by the time of application. Those who are applying from outside UCSF should have this established by the beginning of the program. Applicants applying from outside UCSF are encouraged to identify and contact UCSF research mentors on their own or, after acceptance into the program, may request assistance from the TICR Program to help them identify a research mentor.

For scholars who are primarily based in other training programs at UCSF, supervisor's assurance that at least 70% of time will be available August through May to divide between the classroom activities of this program and the conduct of the trainee's clinical research projects.

Affirmation of the Professional Conduct Statement (https://ucsf.app.box.com/file/1137421301764/? s=0iljb3ynyl9clnboi4t5tiopflu6hrqz) (signed during orientation).

Application information can be found on our website (https://epibiostat.ucsf.edu/advanced-training-clinical-research/).

# **Learning Outcomes**

To complete the program, scholars must accomplish program objectives, which are to:

- Learn the methods required to perform both observational and experimental clinical research;
- b. Plan and implement one or more clinical research projects; and
- c. Analyze, interpret, and present clinical research data.

# **Degree Requirements**

A total of 16 required courses (https://epibiostat.ucsf.edu/advanced-training-clinical-research-certificate/) (28.5 quarter credit units) must be successfully completed. In addition to the required courses, scholars are encouraged to take one or more elective courses (https://epibiostat.ucsf.edu/individual-courses/) according to their interests.

# **Core Courses**

A total of 16 required courses (https://epibiostat.ucsf.edu/advanced-training-clinical-research-certificate/) (28.5 quarter credit units) must be successfully completed. In addition to the required courses, scholars are encouraged to take one or more elective courses (https://epibiostat.ucsf.edu/individual-courses/) according to their interests.

Course	Title	Units
Summer		
EPIDEMIOL 201	Responsible Conduct of Research	0.5
EPIDEMIOL 202	Designing Clinical Research (Two Month)	2
EPIDEMIOL 218	Data Collection and Management for Clinical Research	1
BIOSTAT 212	Introduction to Statistical Computing in Clinical Research	1
	Units	4.5
Fall		
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
EPIDEMIOL 203	Epidemiologic Methods	4
EPIDEMIOL 204	Clinical Epidemiology *	3
EPIDEMIOL 220 or EPIDEMIOL 230	Master's Seminar I or ATCR Seminar	1
	Units	11
Winter		
EPIDEMIOL 205	Clinical Trials	2
EPIDEMIOL 222	Social Determinants of Health and Health Disparities	1-2
EPIDEMIOL 220 or EPIDEMIOL 230	Master's Seminar I	1
BIOSTAT 208	Biostatistical Methods II	3
DIOSTAT 200	Units	7-8
Spring	Cinto	, ,
EPIDEMIOL 212	Publishing and Presenting Clinical Research	1-1.5
EPIDEMIOL 214	Systematic Reviews	1
BIOSTAT 209	Biostatistical Methods III	3
EPIDEMIOL 220 or EPIDEMIOL 230	Master's Seminar I or ATCR Seminar	1
	Units	6-6.5
	Total Units	28.5-30

\* ATCR Certificate students may opt out of EPI 204. Students who opt out of EPI 204 must take the equivalent of 3 units in another elective(s) (https://epibiostat.ucsf.edu/individual-courses/). Find additional details on program of study for the Advanced Training in Clinical Research (ATCR) Certificate Program (https://epibiostat.ucsf.edu/advanced-training-clinical-research/).

# Artificial Intelligence and Computational Drug Discovery and Development (MS)

Degree Offered: MS Program Leadership:

Joanne Chun, PharmD, PhD, Director Amita Joshi, PhD, MPharm Michelle Wang, PharmD, PhD

#### **Admissions Inquiries**:

Joanne Chun, PharmD, PhD, Director

# **Program Description**

The Artificial Intelligence and Computational Drug Discovery and Development (AICD3) Graduate Program is a 1.5 years (5 quarters) program leading to a MS in Artificial Intelligence and Computational Drug Discovery and Development. Students will complete 38 units of didactic courses in the first three quarters, then complete a capstone project in the following two quarters (20 weeks)

The program will train students to apply computer science, data science, statistical analysis, machine learning, and other data-driven methods to bolster the discovery and development of new drugs and therapies. The program intends to give students the competitive edge for the most desirable jobs in the biopharmaceutical industry and in academia, both of which increasingly require interdisciplinary training

The curriculum is carefully designed to ensure mastery in computational approaches spanning systems pharmacology, bioinformatics, physiologic-based pharmacokinetic/pharmacodynamic modeling, and pharmacogenomics, that will pave the way to transformational changes and innovation of drug discovery (e.g., identification of novel targets) and drug development (e.g., virtual human trials). Didactic courses will provide students with in-depth foundational computer science knowledge and advanced computational skills, and cover the latest technological advancements while emphasizing the ethical implications and societal impacts of AI in healthcare.

The Capstone Project is required for graduation from the Al-CD3 program. It is designed and structured to allow students to gain experience applying learned tools and methodologies to drug discovery and drug development projects in an academic or industry setting. These projects provide experiential training in which students will use the computational skills and tools that they gained in their didactic curriculum in an applied project in either industry or academia. Additionally, the Capstone Project will allow students to deeply explore fields of interest and collaborate with scientists from many disciplines. It concludes with the submission and presentation (poster and oral) of the project.

# **Admission Requirements**

# **Basic qualifications:**

Prospective students must possess a bachelor's degree from an accredited institution by the time classes commence.

# Preferred degree backgrounds:

Applicants with degrees in the following fields are encouraged to apply:

- · biology, chemistry, biochemistry
- · computer science, computer engineering, electrical engineering

- · statistics, data science
- · mathematics

These degrees should demonstrate the applicant's capability for success in technical studies

# **Consideration for non-technical degrees:**

Candidates with degrees outside the mentioned technical fields may still be considered if:

- · They've undertaken significant relevant coursework.
- The admissions committee assesses them as adequately prepared for graduate studies.

# **Additional prerequisites:**

- · Minimum GPA: 3.0 out of 4.0.
- Essential courses: calculus, and at least one from the following: biology, chemistry, physiology, or biochemistry.

# **Learning Outcomes**

The program's learning outcomes revolve around mastering the essential skills and knowledge in AI and computational techniques for drug discovery and development. This includes proficiency in data analysis, understanding of drug design processes, ethical considerations in AI, and the ability to translate theoretical knowledge into practical solutions for real-world challenges.

# **Degree Requirements**

**FORTHCOMING** 

# **Core Courses**

FORTHCOMING

Course Summer	Title	Units
EPIDEMIOL 201	Responsible Conduct of Research	0.5
EPIDEMIOL 202	Designing Clinical Research (Two Month)	2
BIOSTAT 212	Introduction to Statistical Computing in Clinical Research	1
EPIDEMIOL 218	Data Collection and Management for Clinical Research	1
	Units	4.5
Fall		
EPIDEMIOL 203	Epidemiologic Methods	4
EPIDEMIOL 204	Clinical Epidemiology *	3
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
EPIDEMIOL 230	ATCR Seminar	1
	Units	11
Winter		
EPIDEMIOL 205	Clinical Trials	2
EPIDEMIOL 222	Social Determinants of Health and Health Disparities	1
BIOSTAT 208	Biostatistical Methods II	3
EPIDEMIOL 230	ATCR Seminar	1
	Units	7
Spring		
EPIDEMIOL 212	Publishing and Presenting Clinical Research	1
EPIDEMIOL 214	Systematic Reviews	1
BIOSTAT 209	Biostatistical Methods III	3

EPIDEMIOL 230	ATCR Seminar	1
	Units	6
	Total Units	28.5

\* ATCR Certificate students may opt out of EPI 204. Students who opt out of EPI 204 must take the equivalent of 3 units in another elective(s) (https://epibiostat.ucsf.edu/individual-courses/).

Find additional details on program of study for the Advanced Training in Clinical Research (ATCR) Certificate Program (https://epibiostat.ucsf.edu/advanced-training-clinical-research/).

# Biochemistry and Molecular Biology (Tetrad) (PhD)

Visit program website. (https://tetrad.ucsf.edu/)

Degree Offered: Biochemistry and Molecular Biology PhD

Program Leadership: Natalia Jura, PhD, Director David Toczyski, PhD, Co-Director Admissions Inquiries:

Toni Hurley, Program Coordinator Danny Dam, Student Affairs Coordinator

# **Program Description**

The Tetrad graduate program prepares students to pose and address fundamental research problems in modern biology. The program highly values curiosity-driven research that investigates challenging questions in life sciences conducted in a collegial and scientifically rigorous manner. The program places special emphasis on modern approaches within three core and interrelated areas listed below. The research conducted under the Tetrad umbrella encompasses a wide range of structural, molecular, cellular, physiological, and pathophysiological questions.

The Tetrad program was among the first graduate programs nationwide to break down barriers between disciplines; emphasis on interdisciplinary research remains a guiding principle of the program. Hand-in-hand with promoting interdisciplinary research is the program's emphasis on fostering a strong sense of community and interactions among students and the program's cadre of internationally recognized scientists. Program activities include an annual retreat held in Lake Tahoe, a weekly seminar program featuring top scientists from around the world, and multiple other activities that provide student/faculty interactions in both formal and informal settings.

All Tetrad graduate students go through the same admission process, take the same classes, and have the same requirements. Depending on the specific aspects of their thesis work, their PhD degree will be in one of the indicated areas below.

# **Faculty**

Over 120 faculty members are associated with the Tetrad program, representing all of the basic science departments of UCSF, numerous research centers such as the Helen Diller Family Comprehensive Cancer Center, the Cardiovascular Research Institute at UCSF, and the Institute for Neurodegenerative Diseases, and many clinical departments.

Tetrad is a member of the Program in Biological Sciences (https://pibs.ucsf.edu/) (PIBS) at UCSF.

#### **Sub-disciplines**

- · Biochemistry and Molecular Biology
- · Cell Biology
- · Genetics

The Tetrad program office is located at the Mission Bay campus, though some classes and labs affiliated with the program are at the Parnassus campus as well.

The Tetrad program is offered by the UCSF Graduate Division, administered by the UCSF Department of Biochemistry and Biophysics,

and delivered by faculty members in the UCSF schools of dentistry, medicine, and pharmacy.

# **Admission Requirements**

Because of the interdisciplinary nature of the Tetrad Graduate Program, we expect that entering graduate students will have diverse undergraduate preparation. Students with backgrounds in anatomy, biochemistry, biology, chemistry, physics and related fields are welcome to apply, providing they have demonstrated a high level of academic proficiency (generally a grade point average of 3.0 or higher in relevant science courses). Evidence of exposure to scientific research, generally as participation in a research project during at least one year (preferably two or more years), is regarded as an important attribute of the successful applicant.

# **Learning Outcomes**

- a. Establish a foundation of knowledge in the fundamental principles underlying biological processes, from molecules to organisms. This objective is enabled by 1st year coursework that emphasizes basic concepts, methods of discovery, and lifelong learning, followed in later years by individual thesis projects that are motivated by addressing fundamental questions of cellular or organismal function in mechanistic depth.
- b. Learn to critically evaluate the literature and assess the significance of a given biological question. This objective is enabled by in-depth paper discussions and proposal writing within courses in the 1st year, journal clubs and qualifying exam in the 2nd year, and literature study throughout the thesis project.
- c. Learn to independently make original research contributions through rigorous experimental design, data analysis and interpretation. This objective is enabled through activities such as solving problem sets and formulation of research proposals on new questions in the 1st year, the NSF proposal writing workshop and qualifying exam in the 2nd year, and mentorship by thesis mentor and thesis committee during the thesis project.
- d. Learn to work across disciplines to leverage the strengths of collaborators from different scientific backgrounds. This objective is enabled by the multi-disciplinary nature of the first-year course work, peer-peer learning that leverages the diversity of scientific backgrounds within each class, the multidisciplinary nature of the research programs of most faculty members, the presence of students from different graduate programs in a given thesis lab and a strong ethos of collaboration amongst the different laboratories at UCSF.
- e. Learn how to promote and support an inclusive scientific environment. This objective is enabled through training activities that include diversity workshops for 1st year students, collaboration with faculty who participate in diversity and inclusion-promoting campus organizations, opportunities to mentor summer research students from under-represented backgrounds, and participation in outreach events.
- f. Establish values that drive the responsible and ethical practice of science. This fundamental objective is enabled through examples of best scientific practices threaded throughout the 1st year courses, two focused courses in the Responsible Conduct of Research in the 1st and 5th years, journal clubs, seminar series, day-to-day mentormentee interactions and thesis committee meetings.
- g. Develop skills for effective oral and written communication of complex scientific ideas and findings. This objective is enabled through the writing and oral defense of research proposals in two 1st year

courses, journal club presentations, writing and oral defense of a qualifying exam proposal, writing an NSF proposal, presentations in lab meetings and thesis committee meetings, presentations at scientific meetings within and outside UCSF, and the program requirement for thesis completion of writing at least one manuscript on original work for publication in a peer-reviewed journal.

# **Additional Information**

# **Program Faculty**

 Find a program faculty list (https://tetrad.ucsf.edu/faculty/) on the program website.

### **Career Outcomes**

 Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

### **Doctoral**

- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- Completion and submission of the dissertation based on the current Tetrad guidelines
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

# **Core Courses**

Course	Title	Units
Year 1		
BIOCHEM 200A	Structure of Macromolecules	3
CELL BIOL 245	Cell & Developmental Biology	4
GRAD 202	Racism in Science	3
BIOCHEM 201A	Biological Regulatory Mechanisms	4
GENETICS 200A	Principles of Genetics	3
Various: 2-3 Minicourses		2-3
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
BIOCHEM 215	Laboratory Rotation (Taken all terms)	9
BIOCHEM 221	Selected Topics (Journal Club, taken all terms)	3
BIOCHEM 220	Biochemistry Basic Science Seminar Series	1
	Units	33.5-34.5
Year 2		
BIOCHEM 250	Research (Taken all terms)	24
BIOCHEM 221	Selected Topics (Journal Club, taken all terms)	3
Any approved electives		
	Units	27
Year 3 and Beyond		
BIOCHEM 250	Research (Taken all terms)	24
Any approved electives		
Any approved electives	Units	24

# **Approved Electives**

Code	Title	Units
BIOCHEM 210	Special Topics	3
BIOCHEM 241	Startup 101	3

	BIOMED SCI 270	Special Topics in Biomedical Sciences	3
	BIO MD INF 219	Special Topics in Bioinformatics	3
	BIOPHYSICS 219	Special Topics in Biophysics	3
	CHEMISTRY 219	Special Topics in Basic and Translational Chemical Biology	3
	GRAD 210	Justice, Equity, Diversity and Inclusion Academic Leadership (with approval from the Graduate Division)	4
	DEV STMCEL 270	Special Topics in Developmental & Stem Cell Biology	3
	GRAD 213	Motivating INformed Decisions (MIND) Catalytic Course	2
	GRAD 286	GSICE Curricular Practicum	1
	GRAD 219A	Special topics in racism and social justice in science	3
	GRAD 219B	Special topics in racism and social justice in science	3
	GRAD 219C	Special topics in racism and social justice in science	3
	NEUROSCI 219	Special Topics in Basic and Translational Neuroscience	3

Other electives may be approved by program on a case-by-case basis

# **Non-course Core Requirements**

- a. Attendance/participation in Boot Camp:
  - i. We realize that our incoming students come from a wide variety of experimental backgrounds, so the first year begins with a week-long series of intensive hands-on courses on cutting-edge concepts and experimental techniques that will be useful in a modern biomedical research lab.
- b. Passing qualifying exam
- c. Teaching assistantship in year 2
- d. Submission/publication of first-author research paper
- e. Presentation of thesis talk

# **Bioengineering (PhD)**

Visit program website. (https://bioegrad.berkeley.edu/)

#### Program Leadership:

Duan Xu (https://profiles.ucsf.edu/duan.xu), PhD, Director, UCSF Admissions Inquiries:

Rocío Sanchez, Graduate Program Adviser, UC Berkeley Moriel Vandsburger, PhD, Executive Committee CoChair, UC Berkeley Victoria Starrett, Program Coordinator, UCSF

# **Program Description**

The UCSF-UC Berkeley Joint PhD Program in Bioengineering combines the outstanding resources and faculty in biomedical sciences at UCSF with the excellence in engineering, physical, and life sciences at UC Berkeley. Students in this highly interdisciplinary program learn to bring the methods of cutting-edge engineering to bear on some of the most pressing problems in biology and medicine.

Bioengineering is a young but rapidly evolving discipline. The UCSF-UCB Bioengineering program offers students unparalleled opportunities to do basic and applied bioengineering research in a wide variety of related fields, reflecting the strengths and breadth of program faculty across the two campuses and in multiple departments.

#### **Faculty**

There are 160 core faculty members and 76 additional affiliate faculty members in the joint program. The Bioengineering program combines the research activities of faculty from more than 33 departments from all four professional schools at UCSF together with 14 departments from the College of Engineering at Berkeley, as well as several non-engineering departments there.

The Bioengineering program is a member of the Quantitative Biosciences Consortium (https://qbc.ucsf.edu/) (QBC) at UCSF.

**Sub-Disciplines** 

- · Biomaterials, Cell and Tissue Engineering
- · Biomedical Imaging
- · BioMEMS and Nanotechnology
- · Computational Biology, Bioinformatics, and Genomics
- Neural Systems Engineering and Vision Science
- · Systems and Synthetic Biology

The Bioengineering program's UCSF office is located at the Mission Bay campus.

The Bioengineering program is offered by the UCSF Graduate Division, administered by the UCSF schools of pharmacy and medicine and the UC Berkeley College of Engineering, and delivered by faculty members in the UCSF schools of pharmacy and medicine and the UC Berkeley College of Engineering.

# **Admission Requirements**

All Admissions requirements are available on our website: bioegrad.berkeley.edu/prospectivegrads/admissions (https://bioegrad.berkeley.edu/prospectivegrads/admissions/)

Entering students are expected to have a B.A. or B.S. in engineering, biology, or other science. Typically, this includes a two-year college mathematics sequence, a one-year sequence in each of physics,

chemistry and computer science, and extensive upper-division work in either engineering or biology. The mathematical level should include calculus, differential equations, and linear algebra. Outstanding students who are lacking in some of these areas may be admitted with the condition that they complete any necessary undergraduate coursework while in the program.

Additional requirements include:

- a. The online application (via UC Berkeley)
- b. Emphasis of specialty area of study (first and second choice)
- c. Three letters of recommendation
- d. A completed recommendation waiver form (to be completed online)
- e. Unofficial transcripts (submitted online)
- f. Conversion of GPA (for international students only)
- g. Test of English as a Foreign Language (TOEFL) or The International English Language Testing System (IELTS) official scores (for international students only)
- h. Application fee
- i. Graduate Record Exam (GRE) official scores (optional)

Applications that are incomplete by the time of review will not be competitive for admission. Making sure an application is complete is solely the responsibility of the applicant and should be done in a timely manner.

The application process is **entirely online**. Please **do not** mail copies of the statement of purpose, GRE **and** TOEFL scores, publications, resumes, recommendation letters or transcripts. Any supplemental data, such as publications, resumes, and home pages, should be uploaded with your application. All applications must be submitted through the Berkeley campus' online application site for graduate admissions. Please take care to ensure all email addresses, as well as your own email address, are entered correctly.

# **Learning Outcomes**

The PhD in Bioengineering is granted jointly by Berkeley and UCSF, two of the top public universities in the world in engineering and health sciences. Our interdisciplinary program combines the outstanding resources in biomedical and clinical sciences at UCSF with the excellence in engineering, physical, and life sciences at Berkeley.

Administered by the Department of Bioengineering at UC Berkeley and the Department of Bioengineering and Therapeutic Sciences at UCSF, all students in the program are simultaneously enrolled in the graduate divisions of both the San Francisco and Berkeley campuses and are free to take advantage of courses and research opportunities on both campuses. The program awards the PhD in Bioengineering degree from both campuses.

Students who complete the Bioengineering PhD will be able to

- Design, evaluate, execute and revise experiments and research methods in areas related to both advanced biology and engineering within their specific field of interest.
- Apply their knowledge to other scientific disciplines outside of their given research field.
- c. Defend their research results and author papers in distinguished scientific journals.

- d. Collaborate with other students, faculty and researchers in their specified field in order to produce tangible, quantifiable research results.
- e. Organize, schedule and instruct other researchers in their given field (teaching requirement).
- Present and communicate their research to a diverse variety of audiences.

# **Additional Information**

# **Program Faculty**

- · Core Program Faculty
- Executive Committee (Includes Course Directors)

#### **Career Outcomes**

• Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

- · Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- · Complete and submit the dissertation
- For additional details, please see: graduate.ucsf.edu/bioe (https://graduate.ucsf.edu/bioe/)

# **Core Courses**

# **UCSF Course Requirements**

Code	Title	Units
BIOENGR 281	Biological Aspects of Bioengineering	1
BIOENGR 250	Research	1-8
GRAD 202	Racism in Science	3
Total Units		5-12

#### **UCSF Approved Electives**

Code	Title	Units
BIOENGR 215	Laboratory Rotation	1-8
BIOENGR 221	Tissue Mechanobiology	2.5-3
BIOENGR 240	Principles of Magnetic Resonance Imaging	4
BIOENGR 241	Metabolism and Magnetic Resonance Spectroscopy	3
BIOENGR 245	Machine Learning Algorithms for Medical Imaging	3-4
BIOENGR 249	Group Studies	1-8
BIOENGR 260	Translational Challenges in Medicine	1
BIOENGR 270	Translational Challenges: Diagnostics, Devices &Therapeutics	2
BIOENGR 283	Designing Clinical Research for Industry	2
BIOENGR 285	Health Care Finance & Economics	2
BIOENGR 297	Special Study	1-8
BIOENGR 299	Dissertation	0
BIO MD INF 203	Biocomputing Algorithms	4

DIO MD INIT OOG	Obstication I Mode and a few Distinguish and a single	4
BIO MD INF 206	Statistical Methods for Bioinformatics	4
BIOCHEM 210	Special Topics	3
BIOCHEM 241	Startup 101	3
BIOMED IMG 203	Imaging Probes for Nuclear and Optical Imaging	3
BIOMED IMG 204	Principles of Diagnostic and Therapeutic Ultrasound	2
BIOMED IMG 205	Imaging Study Design	3
BIOMED IMG 211	MR Pulse Sequences	3
BIOMED IMG 220	Advanced Neurological Imaging	3
BIOMED IMG 230	Cardiovascular Imaging	3
BIOMED IMG 260	Image Processing and Analysis I	2
BIOMED IMG 265	Image Processing and Analysis II	3
BIOMED IMG 270	Cancer Imaging	3
BIOMED IMG 280	Musculoskeletal, Abdominal, and Pelvic Imaging	3
BIOMED SCI 230	Advanced Topics in Cancer Research	0.5
BIOMED SCI 255	Basic Genetics & Genomics	4
BIOMED SCI 260	Cell Biology	4
BIOMED SCI 270	Special Topics in Biomedical Sciences	3
BIOPHRM SC 133	Pharmacokinetics in Drug Development	3
BIOPHYSICS 205B	Complex Biological Systems B	2.5-4
BIOPHYSICS 219	Special Topics in Biophysics	3
BIOPHYSICS 241	Physical Biology	5
CELL BIOL 245	Cell & Developmental Biology	4
CHEMISTRY 243	Chemical Biology	5
BIOPHYSICS 241	Physical Biology	5
EPIDEMIOL 210	Epidemiology of Aging	2
DEV STMCEL 257	Developmental and Stem Cell Biology	4
EPIDEMIOL 253	Methods in Infectious Disease Epidemiology	2-3
GENETICS 200A	Principles of Genetics	3
GLOBL HLTH 101X	Introduction to Global Health	1.5
GLOBL HLTH 202D	Social Determinants of Health	3
GRAD 213	Motivating INformed Decisions (MIND) Catalytic Course	2
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
MICROBIOL 204	Molecular and Cellular Immunology	3
GRAD 219A	Special topics in racism and social justice in science	3
GRAD 219B	Special topics in racism and social justice in science	3
GRAD 219C	Special topics in racism and social justice in science	3
NEUROSCI 201A	Basic Concepts in Cellular and Molecular Neuroscience	5
NEUROSCI 201B	Basic Concepts for Cellular and Developmental Neuroscience	4
NEUROSCI 201C	Introduction to Systems and Behavioral Neuroscience	4
NEUROSCI 248	Analysis of Neural and Behavioral Data	3
PHARMGENOM 219	Special Topics in Pharm Sci and Pharmacogenomics	3
	-	

PHARMGENOM 245A	Basic Principles of Pharmaceutical Sciences	5
RAD ONCOL 235A	Radiation Therapy Physics I	3
RAD ONCOL 235B	Radiation Therapy Physics II	3
RAD ONCOL 235C	Radiation Therapy Physics III & Clinical Rotation	3

Other elective courses may be approved by the program as appropriate. Please consult program administrators for more details.

# **UC Berkeley Course Requirements**

**URL for Berkeley BioE course listing:** http://guide.berkeley.edu/graduate/degree-programs/bioengineering/#coursestext

Code	Title	Units
BIO ENG 200		1
BIO ENG 301		1
BIO ENG 201		1

#### **UC Berkeley Approved Electives**

Code	Tit	tle	Units
BIO ENG 203			4
BIO ENG C208			4
BIO ENG C209			4
BIO ENG 211			3
BIO ENG C212			3
BIO ENG C213			3
BIO ENG C214			3
BIO ENG C215			4
BIO ENG C216			4
BIO ENG C217			3
BIO ENG C218			3
BIO ENG C219			3
BIO ENG 220L			4
BIO ENG 221			4
BIO ENG 221L			4
BIO ENG C222			4
BIO ENG C223			3
BIO ENG 224			3
BIO ENG 225			3
BIO ENG C230			3
BIO ENG 231			4
BIO ENG C231			4
BIO ENG 232			4
BIO ENG 235			4
BIO ENG C237			4
BIO ENG 241			4
BIO ENG 243			4
BIO ENG 244			4
BIO ENG 244L			3
BIO ENG 245			4
BIO ENG 247			4
BIO ENG 248			3
BIO ENG C250			3

BIO ENG 251	4
BIO ENG 252	2
BIO ENG 253	2
BIO ENG C261	4
BIO ENG 263	4
BIO ENG 263L	4
BIO ENG C265	4
BIO ENG 266	4
BIO ENG 271	3
BIO ENG 280	1
BIO ENG C280	3
BIO ENG C281	3
BIO ENG 282	3
BIO ENG 290	1-4
BIO ENG C290D	3
BIO ENG 295	3
BIO ENG 296	3
BIO ENG 297	1
BIO ENG 298	1-8
BIO ENG 299	1-12
BIO ENG N299	1-6
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Other elective courses may be approved by the program as appropriate. Please consult program administrators for more details.

# **Non-course Core Requirements**

# **Summary of Requirements**

Graduation from the program depends on the successful completion of the following requirements. More details, including necessary forms, can be found in the subsequent sections.

#### a. Course Requirements and Program of Study

All students in the program must complete the following course requirements:

- A. Area Requirements: (breadth requirements, many satisfied by previous coursework)
- B. Major Area and Minor Area: (depth requirements completed by graduate courses) Major = 16 semester (24 quarter) units. Minor = 8 semester (12 quarter) units.
- C. First Year Seminars: BIOENGR 200 (UCB) and BIOENGR 281 Biological Aspects of Bioengineering (UCSF)
- D. Bioengineering Teaching Techniques: BIO ENG 301 (UCB)
- E. Ethics: BIO ENG 201 (UCB) or equivalent, taken in the first and fourth years
- F. GRAD 202 Racism in Science (UCSF) (Must be taken Fall of incoming year).

#### b. Grade Point Average (GPA) Requirements

Students are required to maintain a cumulative grade point average of 3.0 in academic coursework.

c. First Year Research Rotations and Research Mentor Selection

Students complete three research rotations with program core faculty members during their first year in the program. After completion of these rotations at the end of the spring semester, students select a rotation mentor as their dissertation research mentor.

#### d. Graduate Student Instructor/Teaching Assistantship

All students must complete a minimum of one 10-hour Graduate Student Instructor (GSI) assignment. Can be completed at either UCB or UCSF. Does not need to be a BioE course.

#### e. Qualifying Examination

Students identify qualifying exam committee members during their 2nd year and hold the qualifying exam (written and oral presentation) by the end of the fall of their 3rd year.

#### f. Advancement to Candidacy

After successful completion of the qualifying exam, students submit the proper Graduate Division and program forms to formally advance to candidacy.

#### g. Research Conference Presentation

Students must present (poster or a talk) at a research conference at least once. This can include presenting at the program's annual retreat.

#### h. Annual Progress Reports

Students are required to meet with their academic advisor and/ or dissertation committee each year and submit annual progress reports.

#### i. Dissertation

Students write a dissertation compiling the results of their graduate research. Upon written approval of their dissertation committee, students file their dissertation with the Graduate Division of their home campus.

#### j. Exit Seminar

Graduating students hold a concluding research seminar to present their graduate work.

# **Biological and Medical Informatics** (PhD)

Visit program website. (https://bioinformatics.ucsf.edu/)

Degree Offered: PhD Program Leadership:

Tony Capra, Program Co-Director Ryan Hernandez, Program Co-Director

**Admissions Inquiries:** 

Rebecca Dawson, Program Coordinator

# **Program Description**

The Biological and Medical Informatics program equips PhD students with the skills and knowledge in applied mathematics, informatics, statistics, computer science, physics, chemistry, and biology needed to study biological composition, structure, function, and evolution at the molecular, cellular, and systems levels. Students are involved with gathering, storing, analyzing, predicting, and disseminating complex information. The field is essential, for without quantitative analysis of the massive and growing amounts of biological data generated by various systems, biology and -omics data cannot be interpreted or exploited.

UCSF researchers pioneered many bioinformatics areas including data visualization, systems biology, protein structure prediction, and drug design. With faculty interests that include genetics, genomics, evolution, protein structure, systems biology, host-pathogen interactions, drug design, and cellular biology, students have a wide range of areas to explore and integrate. Members of the Bioinformatics faculty include members of the National Academy of Sciences, Howard Hughes Investigators, Searle Scholars, and National Institutes of Health (NIH) New Innovator Awardees.

# **Faculty**

Over 50 faculty members teach and mentor students in the BMI program. Faculty members are affiliated with the departments of Pharmaceutical Chemistry, Bioengineering and Therapeutic Sciences, Cellular and Molecular Pharmacology, Biochemistry and Biophysics, Epidemiology and Biostatistics, Microbiology and Immunology, Medicine, Neurology, and Surgery; as well as the Gladstone Institute and Institute for Human Genetics.

# **Sub-disciplines**

The BMI program is a member of the Quantitative Biosciences Consortium (https://qbc.ucsf.edu/) (QBC) with the following areas of emphasis:

- · Bioinformatics and computational biology
- · Genetics and genomics
- · Complex biological systems

The BMI program office is located at the Mission Bay campus. Visit the program website (https://bioinformatics.ucsf.edu/) for more information.

The BMI program is offered by the UCSF Graduate Division, administered by the UCSF School of Pharmacy, and delivered by faculty members in the UCSF schools of pharmacy and medicine.

# **Learning Outcomes**

The BMI Program will provide our students with both a foundation in computational/statistical approaches and a sophisticated understanding of biology, including not only sophisticated computational approaches for modeling and data analysis, but also a deep understanding of how data are collected, processed, and interpreted.

The program seeks to bridge computational and biomedical research methods. In particular, the ability to use quantitative models to derive predictions that can be rigorously tested and to synthesize vast amounts of information into quantitative models, and effectively communicate their findings.

At the core of our program is an emphasis on scientific excellence and a focus on training in the tools, methods and knowledge necessary to conduct independent, rigorous, reproducible, and impactful research. Concurrently, we recognize that additional competencies—including leadership, management, effective written and oral presentation, communication and teamwork skills—are needed for our students to successfully compete in their future positions in academia, industry, or the public sector. To address this need, we provide proactive mentoring and diverse professional development opportunities to help each student optimally prepare for their careers.

# **Additional Information**

# **Program Faculty**

 Find a program faculty list (https://bioinformatics.ucsf.edu/people/ faculty/) on the program website.

# **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

- Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the dissertation
- For additional details, please see graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

### **Core Courses**

Code	Title	Units
BIO MD INF 206	Statistical Methods for Bioinformatics (Fall)	4
BIO MD INF 203	Biocomputing Algorithms (Winter)	4
BIO MD INF 219	Special Topics in Bioinformatics (Spring) <sup>1</sup>	3
BIO MD INF 221	Informatics Rotation (Fall, Winter, Spring)	1-8
BIO MD INF 222	Student Informatics Seminar (Fall, Winter, Spring)	1

BIO MD INF 223	Critical Topics in Biomedical Informatics (first two years in program Fall, Winter, Spring)	1
BIO MD INF 220	Informatics Seminar (Fall, Winter, Spring)	1
BIO MD INF 250	Research (Fall, Winter, Spring)	4-8
GRAD 202	Racism in Science (Fall)	3
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility (Spring)	1.5
One elective course (Wir	ter quarter)	
Total Units	2	3.5-34.5

Choose three from all Basic Science programs, courses offered change annually.

# **Non-Course Core Requirements**

Annual retreat with CCB, Biophysics, and PSPG programs; Introductory bootcamp before start of first year; Genetics-Genomics Fundamentals workshop first year before start of Fall course work.

# **Biomedical Imaging (MS)**

Visit program website. (https://radiology.ucsf.edu/education/graduate-programs/msbi-program/)

Degree Offered: MS Program Leadership:

Youngho Seo, PhD Program Director

Susan Noworolski, PhD, Director of Graduate Studies

**Admissions Inquiries:** 

Mike Leon, Program Administrator

# **Program Description**

The Master of Science in Biomedical Imaging (MSBI) program is intended for students with bachelor's degrees, advanced pre-doctoral students, postdoctoral fellows, residents, researchers and faculty members who wish to master biomedical imaging and research methods to enhance their research designs and broaden their investigative projects.

The UCSF MSBI Program is one of the first of its kind in the United States. It is unique in terms of the breadth and depth of subject matter conveyed over a relatively short period of time. MSBI graduates may matriculate through the program in either three or four 10-week academic quarters.

### **Faculty**

The MSBI Faculty comprises 13 assistant, associate and full professors who are part of the UCSF Department of Radiology and Biomedical Imaging. In addition, throughout any academic quarter, several guest lecturers from the department, as well as from other departments at UCSF are invited to offer lectures and share expertise in any core course or elective.

### **Research Areas**

- · Cancer imaging
- · Neurological imaging
- · Musculoskeletal imaging
- · Abdominal/pelvic imaging
- · Nuclear-optical imaging
- · Image processing and analysis
- · Imaging study design
- · Diagnostic and therapeutic ultrasound
- · Radiopharmaceutical probes
- · MR pulse sequence development

#### **Career Outcomes**

Graduates of the MSBI program have continued on a variety of paths since graduation. These include: medical school, doctoral programs, internships and employment in academic labs, as well as internships and employment in industry.

The MSBI program office is located at the UCSF China Basin campus, where the majority of the MSBI program lectures and labs are also convened. Some labs are convened offsite (e.g., at UCSF Mission Bay Campus and the Veterans' Administration Medical Center in San Francisco).

The Biomedical Imaging MS program is offered by the UCSF Graduate Division. The program is administered by the UCSF Department of

Radiology and Biomedical Imaging and delivered by faculty members in the Department of Radiology and Biomedical Imaging.

# **Admission Requirements**

- · Undergraduate degree in basic sciences or engineering
- · Statement of research experience (1 page limit)
- Statement of Purpose (1 page limit)
- · Two letters of recommendation
- · English proficiency metric (i.e. TOEFL/IELTS) for foreign applicants
- Description of education in mathematics and computer science (1 page limit) recommended

## **Learning Outcomes**

- Knowledge about the fundamentals of medical image formation and analyses
- · Hands-on experience with imaging equipment and analyses
- Knowledge about applications of medical imaging to characterize pathologies, to monitor response to therapies and to assess underlying biology

## **Additional Information**

### **Program Faculty**

 Find a program faculty list (https://radiology.ucsf.edu/education/ graduate-programs/msbi-program/people/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on master's programs (https://graduate.ucsf.edu/bioimaging-statistics/) on the Graduate Division website.

# **Degree Requirements**

- Minimum GPA of 3.0
- · Minimum of 36 units
- · All core courses and required activities taken and passed
- Pass comprehensive examination or completion and submission of a master's thesis (students should consult with their program for specific requirements).
- For additional details, please see: graduate.ucsf.edu/masters-degree (https://graduate.ucsf.edu/masters-degree/)

Course	Title	Units
Fall		
BIOMED IMG 200	Professionalism in the Academic Medical Center	1
BIOMED IMG 201	Principles of Magnetic Resonance Imaging <sup>1</sup>	4
BIOMED IMG 260	Image Processing and Analysis I <sup>1</sup>	2
BIOMED IMG 202	Physical Principles of CT, PET, and SPECT Imaging <sup>2</sup>	4
BIOMED IMG 209	Imaging Laboratory MR, CT, PET, & SPECT 2	2
	Units	13
Winter		
BIOMED IMG 265	Image Processing and Analysis II <sup>1</sup>	3
BIOMED IMG 203	Imaging Probes for Nuclear and Optical Imaging <sup>2</sup>	3
BIOMED IMG 204	Principles of Diagnostic and Therapeutic Ultrasound	2
	Units	8

### Spring

	Total Units	24
	Units	3
BIOMED IMG 205	Imaging Study Design	3

### **Approved Electives**

Code	Title	Units
Winter		
BIOMED IMG 211	MR Pulse Sequences	3
BIOMED IMG 230	Cardiovascular Imaging	3
BIOENGR 241	Metabolism and Magnetic Resonance Spectroscopy	3
Spring		
BIOMED IMG 215	Supervised Research	3
BIOMED IMG 220	Advanced Neurological Imaging	3
BIOMED IMG 270	Cancer Imaging	3
BIOMED IMG 280	Musculoskeletal, Abdominal, and Pelvic Imaging	3
BIOENGR 245	Machine Learning Algorithms for Medical Imaging	3-4

# **Non-course Core Requirements**

- Introductory Programming Bootcamp
- Plan I (thesis) students must pass a qualifying examination

Recommended year 1 if part-timeRecommended year 2 if part-time

# **Biomedical Sciences (PhD)**

Visit program website. (https://bms.ucsf.edu/)

**Degree Offered**: PhD **Program Leadership**:

Anita Sil, MD, PhD, Co-Director

Adrian Erlebacher, MD, PhD, Co-Director Eric Huang, MD, PhD, Associate Director

**Admissions Inquiries:** 

Meredith Miner, Program Manager

# **Program Description**

The Biomedical Sciences (BMS) program is an interdisciplinary graduate research program that equips students with the training and research tools to dissect disease-related biology, from single cells to tissue and organ systems. Students in the BMS program must acquire a level of competence in molecular biology, genetics, and cell biology comparable to that expected of students in traditional programs focused in these areas. At the same time, the program incorporates the rigorous and molecular study of core developmental, physiological, and pathological features of human biology and disease.

The BMS curriculum results in a new generation of interdisciplinary biomedical scientists who are able to forge collaborations that break down traditional research boundaries.

### **Faculty**

More than 300 faculty members are associated with the BMS program across more than 50 departments at UCSF.

### **Thematic Areas**

- · Cancer biology and cell signaling
- · Developmental and stem cell biology
- · Human genetics
- Immunology
- Neurobiology
- · Tissue/organ biology and endocrinology
- · Vascular and cardiac biology
- · Virology and microbial pathogenesis

The BMS program office is located at the Parnassus campus. Labs and/ or classrooms are located at the Mission Bay and Parnassus campuses as well as at San Francisco General Hospital, Mt. Zion, and the Veterans Administration Medical Center in San Francisco.

The BMS program is offered by the UCSF Graduate Division, administered by the UCSF Graduate Medical Education Unit, and delivered by faculty members in the UCSF schools of medicine, pharmacy, and dentistry.

# **Learning Outcomes**

Specific training program objectives for each BMS student include:

- Establishing a solid grounding in cellular and molecular biology, genetics and tissue and organ biology, and a broad understanding of human disease states.
- Acquiring a sophisticated awareness and practical exposure to research technologies, and experimental and quantitative approaches that are accelerating basic and translational research in the biomedical sciences.

- Establishing competency in core scientific and professional skills including: Rigorous experimental design, data collection, analysis and interpretation; critical evaluation of the scientific literature; identification of impactful and experimentally tractable research problems; formulation and writing of research proposals; oral presentation of scientific findings to diverse audiences; preparation and publication of scientific manuscripts.
- Establishing competency in working effectively and respectfully with diverse colleagues of varied cultural and personal backgrounds, promoting and supporting inclusive scientific environments.
- Performance, with increasing self-direction, of a body of basic and/ or translational biomedical research that significantly advances the chosen field of study. Students are expected to complete their graduate studies in five to six years of full-time effort.

### **Additional Information**

### **Program Core Faculty**

• Find a program faculty list (https://bms.ucsf.edu/faculty/) on the program website.

### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate
 Division website.

# **Degree Requirements**

- Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three quarters (enrolled in 8 units of BIOMED SCI 250 Research in each quarter) after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the Dissertation
- For additional details, please see: https://graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

Course	Title	Units
Year 1		
Fall Quarter		
GRAD 202	Racism in Science	3
BIOMED SCI 225A	Biostatistics and Computational Biology	2.5
BIOMED SCI 260	Cell Biology	4
BIOMED SCI 215	Laboratory Rotation <sup>2</sup>	1-8
BIOMED SCI 216	Supervised Study <sup>1</sup>	1-5
BIOMED SCI 221	Seminars in Biomedical Sciences <sup>1</sup>	1
	Units	12.5-23.5
Winter Quarter		
BIOMED SCI 225B	Science Communication for Biomedical Scientists $^{\scriptsize 3}$	3
BIOMED SCI 255	Basic Genetics & Genomics	4
BIOMED SCI 215	Laboratory Rotation <sup>2</sup>	1-8
BIOMED SCI 216	Supervised Study <sup>1</sup>	1-5
BIOMED SCI 221	Seminars in Biomedical Sciences <sup>1</sup>	1
	Units	10-21
Spring Quarter		
BIOMED SCI 270	Special Topics in Biomedical Sciences <sup>4</sup>	3
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
BIOMED SCI 215	Laboratory Rotation <sup>2</sup>	1-8

	Total Units	36-81
	Units	2-6
BIOMED SCI 221	Seminars in Biomedical Sciences <sup>1</sup>	1
BIOMED SCI 216	Supervised Study <sup>1</sup>	1-5
Spring Quarter		
	Units	2-6
BIOMED SCI 216	Supervised Study <sup>1</sup>	1-5
BIOMED SCI 221	Seminars in Biomedical Sciences <sup>1</sup>	1
Winter Quarter		
	Units	2-6
BIOMED SCI 221	Seminars in Biomedical Sciences <sup>1</sup>	1
BIOMED SCI 216	Supervised Study <sup>1</sup>	1-5
Fall Quarter		
Year 2		
	Units	7.5-18.5
BIOMED SCI 221	Seminars in Biomedical Sciences <sup>1</sup>	1
BIOMED SCI 216	Supervised Study <sup>1</sup>	1-5

### **Elective Requirement**

Can be fulfilled by taking two minicourses or a full-length course.

### **Approved Electives**

Code	Title	Units
BIOCHEM 200A	Structure of Macromolecules	3
BIOCHEM 201A	Biological Regulatory Mechanisms	4
BIOENGR 221	Tissue Mechanobiology	2.5-3
BIO MD INF 203	Biocomputing Algorithms	4
BIO MD INF 206	Statistical Methods for Bioinformatics	4
BIOMED SCI 230	Advanced Topics in Cancer Research	0.5
BIOPHYSICS 205B	Complex Biological Systems B	2.5-4
DEV STMCEL 257	Developmental and Stem Cell Biology	4
BIOPHYSICS 241	Physical Biology	5
GENETICS 200A	Principles of Genetics	3
MICROBIOL 204	Molecular and Cellular Immunology	3
NEUROSCI 201A	Basic Concepts in Cellular and Molecular Neuroscience	5
NEUROSCI 201B	Basic Concepts for Cellular and Developmental Neuroscience	4
NEUROSCI 201C	Introduction to Systems and Behavioral Neuroscience	4
PHARMGENOM 245A	Basic Principles of Pharmaceutical Sciences	5
PHARMGENOM 245C	Principles of Pharmacogenomics	3
Other elective courses m	ay he approved by the program of	

Other elective courses may be approved by the program as appropriate.

# **Non-course Core Requirements**

- Teaching Assistantship 1 quarter; 2nd year
- Qualifying Exam must take before 8/31 of second year in program

<sup>6</sup> quarters required 3 rotations required

<sup>&</sup>lt;sup>3</sup> MSTPs are exempt from taking BIOMED SCI 225B Science Communication for Biomedical Scientists as a core requirement. They can choose to take it as an elective.

<sup>&</sup>lt;sup>4</sup> Three instances of this course are required, or students can take other basic science minicourses to fulfill this requirement.

# **Biophysics (PhD)**

Visit program website. (https://biophysics.ucsf.edu/)

Degree Offered: PhD Program Leadership:

Aashish Manglik, MD, PhD, Program Director

**Admission Inquiries:** 

Nicole Flowers, Program Administrator

# **Program Information**

The Biophysics program spans research at the interface of physics, chemistry, and biology. It is aimed at students who want to explore the physical properties, structures, and interrelationships of living things by using physics and chemistry to quantify biological processes at the molecular, cellular, and systems levels.

Early access to emerging technologies allows students in the UCSF Biophysics graduate program to explore biology in entirely new ways — before these technologies are generally available to other scientists. As important, the Biophysics faculty has achieved high recognition both nationally and internationally for its accomplishments. More than 10 members of the faculty are members of the National Academy of Sciences. UCSF faculty members pioneered applications of electron microscopy, crystallography, NMR, and image reconstruction techniques. The UCSF Biophysics graduate program ranks among the top in the U.S., according to a report by the National Research Council.

### **Faculty**

More than 50 faculty members are associated the Biophysics program from the departments of bioengineering and therapeutic sciences, biochemistry, pharmaceutical chemistry, cell and tissue biology, neurology, and physiology; as well as the Gladstone Institute and the Cardiovascular Research Institute at UCSF.

The Biophysics program is a member of the Quantitative Biosciences Consortium (https://qbc.ucsf.edu/) (QBC) and the Program in Biological Sciences (https://pibs.ucsf.edu/) (PIBS) at UCSF.

### **Sub-disciplines**

- · Biophysical Approaches to Cell Biology
- · Complex Biological Systems
- Computational and Theoretical Biophysics
- · Membrane Biophysics
- · Protein Engineering and Synthetic Biology
- · Proteomics and Genomics
- · Structural Biology

# **Admission Requirements**

Bachelor's degree in a related field.

# **Learning Outcomes**

### **Passing the Qualifying Exam**

- a. Understands how to pose a scientific question.
- b. Is able to develop a systematic approach to its solution.c. Can interpret the results of that approach concisely and rigorously.
- d. Is able to frame that interpretation both within the context of the system in question and of other related biological systems.

e. All proposals must include a section on the incorporation of responsible conduct of research in your project.

### **Graduation Criteria**

Obtaining a PhD from UCSF signifies that a student has demonstrated the ability to perform and complete high-quality research that makes an original contribution to their field. In practice, the expectation is that at least one first-author paper is "in press" before the thesis is signed. Learning to respond to reviewer critiques is a critical part of graduate training. There is, however, no simple bureaucratic formula to determine what is sufficient, and often the body of work forming a thesis is reported in multiple first-author publications; there are way too many scenarios, and so we rely on the judgment of the thesis committees to make the evaluation of a substantial and original contribution to science.

General Principles: The thesis committee has broad authority to determine when a student has completed a sufficient body of scientific work to graduate, literally by "signing off" on the thesis. In rare cases, the Executive Committee and the program director may become involved in the process, e.g., if the student and his/her adviser do not agree on when it is appropriate for the student to graduate. In no case is it acceptable for a student to ask their committee to sign their thesis solely because they have accepted a job or wish to "move on" for one reason or another. The degree will not be granted until the thesis committee is satisfied that the requirements for graduation have been met, e.g., by completing the publication process for a critical portion of the thesis, regardless of whether the student remains "in residence" at UCSF.

## **Additional Information**

### **Program Faculty**

 Find a program faculty list (https://biophysics.ucsf.edu/people/ faculty/) on the program website.

### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate
Division website.

# **Degree Requirements**

- Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

#### Year 1

- Courses
- · Lab rotations
- · Choose research adviser

### Year 2

- Research
- Form orals committee
- · Complete oral qualifying exam (by end of 2nd year)

### Year 3

- · Research
- · Advancement to Candidacy
- · Form a thesis committee
- · Bi-annual evaluation of progress by thesis committee

#### Year 4

- Research
- · Publish results
- · Bi-annual evaluation of progress by thesis committee
- · 4th-year research talk

### Years 5-6

- · Research
- · Publish results
- · Bi-annual evaluation of progress by thesis committee
- · 5th-year research talk
- · Complete thesis
- · PhD awarded

### **Core Courses**

Code	Title	Units
Core Courses		
BIOPHYSICS 204A	Macromolecular Structure and Interactions	4
BIOPHYSICS 204B	Methods in Macromolecular Structure	4
BIOPHYSICS 219	Special Topics in Biophysics <sup>1</sup>	3
BIOPHYSICS 241	Physical Biology	5
Additional Non-Core Req	uirements	
BIOPHYSICS 215	Laboratory Rotation	1-8
BIOPHYSICS 220	Biophysics Seminar	1
BIOPHYSICS 223	Scientific Communication Seminar	1
BIOPHYSICS 224	Critical Topics in Biophysics	1
BIOPHYSICS 250	Research	1-8
BIOPHYSICS 297	Scientific writing: applying for the NSF predoctoral fellows	1
BIOSTAT 273	Introduction to Biostatistics	1
GRAD 202	Racism in Science	3
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
Total Units	27.	5-41.5

In the spring quarter, students are required to take any three of the mini courses from the following list: BIOCHEM 210 Special Topics, BIOPHYSICS 219 Special Topics in Biophysics, BIOMED SCI 270 Special Topics in Biomedical Sciences, BIO MD INF 219 Special Topics in Bioinformatics, CHEMISTRY 219 Special Topics in Basic and Translational Chemical Biology, GRAD 219A Special topics in racism and social justice in science, GRAD 219B Special topics in racism and social justice in science, GRAD 219C Special topics in racism and social justice in science, NEUROSCI 219 Special Topics in Basic and Translational Neuroscience, PHARMGENOM 219 Special Topics in Pharm Sci and Pharmacogenomics

<sup>2</sup> Only considered core for those with a designated emphasis in Complex Biological Systems, elective for others

### **Approved Electives**

Code	Title	Units
BIO MD INF 203	Biocomputing Algorithms	4
BIO MD INF 206	Statistical Methods for Bioinformatics	4

# **Non-course Requirements**

- Attendance at annual QBC (Quantitative Biosciences Consortium)
   Retreat
- · Introductory Onboarding Intensive before start of first year
- · Faculty Student Talks in first year
- · State of the Field lectures in first year
- · Pass qualifying exam
- · Dissertation and exit talk

# Cell Biology (Tetrad) (PhD)

Visit program website. (https://tetrad.ucsf.edu/)

Degree Offered: PhD in Cell Biology

Program Leadership: Natalia Jura, PhD, Director David Toczyski, PhD, Co-Director Admissions Inquiries:

Toni Hurley, Program Coordinator Danny Dam, Student Affairs Coordinator

# **Program Description**

The Tetrad graduate program prepares students to pose and address fundamental research problems in modern biology. The program highly values curiosity-driven research that investigates challenging questions in life sciences conducted in a collegial and scientifically rigorous manner. The program places special emphasis on modern approaches within three core and interrelated areas listed below. The research conducted under the Tetrad umbrella encompasses a wide range of structural, molecular, cellular, physiological, and pathophysiological questions.

The Tetrad program was among the first graduate programs nationwide to break down barriers between disciplines; emphasis on interdisciplinary research remains a guiding principle of the program. Hand-in-hand with promoting interdisciplinary research is the program's emphasis on fostering a strong sense of community and interactions among students and the program's cadre of internationally recognized scientists. Program activities include an annual retreat held in Lake Tahoe, a weekly seminar program featuring top scientists from around the world, and multiple other activities that provide student-faculty interactions in both formal and informal settings.

All Tetrad graduate students go through the same admission process, take the same classes, and have the same requirements. Depending on the specific aspects of their thesis work, their PhD degree will be in one of the areas indicated below.

### **Faculty**

Over 120 faculty members are associated with the Tetrad program, representing all of the basic science departments of UCSF, numerous research centers such as the Helen Diller Family Comprehensive Cancer Center, the Cardiovascular Research Institute at UCSF, and the Institute for Neurodegenerative Diseases, and numerous clinical departments.

Tetrad is a member of the Program in Biological Sciences (https://pibs.ucsf.edu/) (PIBS) at UCSF.

### **Sub-disciplines**

- · Biochemistry and Molecular Biology
- · Cell Biology
- · Genetics

The Tetrad program office is located at the Mission Bay campus, though some classes and labs affiliated with the program are at the Parnassus campus as well.

The Tetrad program is offered by the UCSF Graduate Division, administered by the UCSF Department of Biochemistry and Biophysics,

and delivered by faculty members in the UCSF schools of dentistry, medicine, and pharmacy.

# **Admission Requirements**

Because of the interdisciplinary nature of the Tetrad Graduate Program, we expect that entering graduate students will have diverse undergraduate preparation. Students with backgrounds in anatomy, biochemistry, biology, chemistry, physics and related fields are welcome to apply, providing they have demonstrated a high level of academic proficiency (generally a grade point average of 3.0 or higher in relevant science courses). Evidence of exposure to scientific research, generally as participation in a research project during at least one year (preferably two or more years), is regarded as an important attribute of the successful applicant.

# **Learning Outcomes**

- a. Establish a foundation of knowledge in the fundamental principles underlying biological processes, from molecules to organisms. This objective is enabled by 1st year coursework that emphasizes basic concepts, methods of discovery, and lifelong learning, followed in later years by individual thesis projects that are motivated by addressing fundamental questions of cellular or organismal function in mechanistic depth.
- b. Learn to critically evaluate the literature and assess the significance of a given biological question. This objective is enabled by in-depth paper discussions and proposal writing within courses in the 1st year, journal clubs and qualifying exam in the 2nd year, and literature study throughout the thesis project.
- c. Learn to independently make original research contributions through rigorous experimental design, data analysis and interpretation. This objective is enabled through activities such as solving problem sets and formulation of research proposals on new questions in the 1st year, the NSF proposal writing workshop and qualifying exam in the 2nd year, and mentorship by thesis mentor and thesis committee during the thesis project.
- d. Learn to work across disciplines to leverage the strengths of collaborators from different scientific backgrounds. This objective is enabled by the multi-disciplinary nature of the first-year course work, peer-peer learning that leverages the diversity of scientific backgrounds within each class, the multidisciplinary nature of the research programs of most faculty members, the presence of students from different graduate programs in a given thesis lab and a strong ethos of collaboration amongst the different laboratories at UCSF.
- e. Learn how to promote and support an inclusive scientific environment. This objective is enabled through training activities that include diversity workshops for 1st year students, collaboration with faculty who participate in diversity and inclusion-promoting campus organizations, opportunities to mentor summer research students from under-represented backgrounds, and participation in outreach events.
- f. Establish values that drive the responsible and ethical practice of science. This fundamental objective is enabled through examples of best scientific practices threaded throughout the 1st year courses, two focused courses in the Responsible Conduct of Research in the 1st and 5th years, journal clubs, seminar series, day-to-day mentormentee interactions and thesis committee meetings.
- g. Develop skills for effective oral and written communication of complex scientific ideas and findings. This objective is enabled through the writing and oral defense of research proposals in two 1st year

courses, journal club presentations, writing and oral defense of a qualifying exam proposal, writing an NSF proposal, presentations in lab meetings and thesis committee meetings, presentations at scientific meetings within and outside UCSF, and the program requirement for thesis completion of writing at least one manuscript on original work for publication in a peer-reviewed journal.

### **Additional Information**

### **Program Faculty**

 Find a program faculty list (https://tetrad.ucsf.edu/faculty/) on the program website.

### **Career Outcomes**

 Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

### **Doctoral**

- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- Complete and submit the dissertation based on the current Tetrad and Graduate Division guidelines
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

### **Core Courses**

Course	Title	Units
Year 1		
BIOCHEM 200A	Structure of Macromolecules	3
CELL BIOL 245	Cell & Developmental Biology	4
GRAD 202	Racism in Science	3
BIOCHEM 201A	Biological Regulatory Mechanisms	4
GENETICS 200A	Principles of Genetics	3
Various: 2-3 minicourses		2-3
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
BIOCHEM 215	Laboratory Rotation (Taken all terms)	9
BIOCHEM 220	Biochemistry Basic Science Seminar Series	1
BIOCHEM 221	Selected Topics (Journal Club, taken all terms)	3
	Units	33.5-34.5
Year 2		
BIOCHEM 221	Selected Topics (Journal Club, taken all terms)	3
CELL BIOL 250	Research (Taken all terms)	24
Any approved electives		
	Units	27
Year 3 and Beyond		
Any approved electives		
CELL BIOL 250	Research (Taken all terms)	24
	Units	24
	Total Units	84.5-85.5

### **Approved Electives**

Code	Title	Units
BIOCHEM 210	Special Topics	3
BIOCHEM 241	Startup 101	3

BIOMED SCI 270	Special Topics in Biomedical Sciences	3
BIO MD INF 219	Special Topics in Bioinformatics	3
BIOPHYSICS 219	Special Topics in Biophysics	3
CHEMISTRY 219	Special Topics in Basic and Translational Chemical Biology	3
GRAD 210	Justice, Equity, Diversity and Inclusion Academic Leadership (with approval from the Graduate Division)	4
DEV STMCEL 270	Special Topics in Developmental & Stem Cell Biology	3
GRAD 213	Motivating INformed Decisions (MIND) Catalytic Course	2
GRAD 286	GSICE Curricular Practicum	1
GRAD 219A	Special topics in racism and social justice in science	3
GRAD 219B	Special topics in racism and social justice in science	3
GRAD 219C	Special topics in racism and social justice in science	3
NEUROSCI 219	Special Topics in Basic and Translational Neuroscience	3

Other electives may be approved by program on a case-by-case basis

# **Non-course Core Requirements**

- a. Attendance and participation in Boot Camp:
  - i. We realize that our incoming students come from a wide variety of experimental backgrounds, so the first year begins with a week-long series of intensive hands-on courses on cutting-edge concepts and experimental techniques that will be useful in a modern biomedical research lab.
- b. Passing qualifying exam
- c. Teaching Assistantship in year 2
- d. Submission/publication of first-author research paper
- e. Presentation of thesis talk

# Chemistry and Chemical Biology (PhD)

Visit program website. (https://ccb.ucsf.edu/)

**Degree Offered**: PhD **Program Leadership**:

Jason Gestwicki, PhD, Program Director Adam Renslo, PhD, Associate Program Director

**Admissions Inquiries:** 

Arezou Razavi, Program Coordinator

# **Program Description**

The Chemistry and Chemical Biology Graduate Program (CCB) prepares scientists to address problems at the intersection of chemistry and biology. In this program, students build a foundation of knowledge in chemistry and then combine it with the skills to understand and probe complex biological processes at the atomic, molecular, and cellular levels.

The CCB program at UCSF ranks among the top such programs in the nation. UCSF is a highly interdisciplinary educational environment, which fosters collaborations across the clinical, translational and basic sciences. The CCB program also has strong connections throughout the San Francisco Bay Area, providing exciting opportunities for trainees to pursue teaching, mentorship, entrepreneurship, science communication, consulting and pharmaceutical experiences.

### **Faculty**

The CCB program brings together about 52 faculty members from many departments across the UCSF campus, including Pharmaceutical Chemistry, Bioengineering and Therapeutic Sciences, Cellular and Molecular Pharmacology, Biochemistry and Biophysics, Physiology, Otolaryngology and Radiology. The CCB faculty pursue many types of research projects, but share a common passion for chemistry and chemical biology. CCB faculty are also highly committed to excellence in mentoring and diversity, equity and inclusion (DEI), and are required to complete formal training in these areas. The CCB laboratories and its main office are located on the Mission Bay campus at UCSF, and are part of research units that include the Institute for Neurodegenerative Diseases, the Helen Diller Cancer Center, the Gladstone Institutes, and the Cardiovascular Research Institute.

The CCB program is a member of the Quantitative Biosciences Consortium (QBC) and the Program in Biological Sciences (PIBS) at UCSF.

### **Sub-Disciplines**

Faculty in CCB provide training in chemistry and chemical biology, with a focus on six related areas:

- · Biological chemistry and synthetic biology
- · Chemical synthesis and natural products
- · Computational chemistry and biology
- · Drug discovery and design
- Macromolecular structure and function
- · Protein and cellular engineering

Visit the program website (https://ccb.ucsf.edu/) for more information.

The CCB program is offered by the UCSF Graduate Division, administered by the UCSF School of Pharmacy, and delivered by faculty members in the UCSF schools of pharmacy and medicine.

### **Additional Information**

### **Program Faculty**

 Find a program faculty list (https://ccb.ucsf.edu/people/faculty/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate
 Division website.

# **Degree Requirements**

- · Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the dissertation
- · Thesis talk
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

## **Learning Outcomes**

- · Identify important problems at the chemistry-biology interface.
- · Develop feasible and testable hypotheses.
- Design and implement experimental and/or computational approaches to addressing a scientific problem.
- · Establish and disseminate new scientific knowledge.

Course Fall	Title	Units
CHEMISTRY 243	Chemical Biology	5
CHEMISTRY 223	Scientific Communication Seminar	1
CHEMISTRY 206	Laboratory Rotation in Chemistry and Chemical Biology	1-10
CHEMISTRY 221	Research Conf in Chem, Chem Biol & Biophysics	1
CHEMISTRY 297	Chemistry and Chemical Biology Journal Club (first two years in program)	1
CHEMISTRY 250	Research	1-8
CHEMISTRY 266	Research Planning Conference	1
BIOPHYSICS 204A	Macromolecular Structure and Interactions <sup>2</sup>	4
BIOPHYSICS 204B	Methods in Macromolecular Structure	4
GRAD 202	Racism in Science	3
	Units	22-38
Winter		
CHEMISTRY 244	Reaction Mechanisms	3
CHEMISTRY 223	Scientific Communication Seminar	1
CHEMISTRY 206	Laboratory Rotation in Chemistry and Chemical Biology	1-10
CHEMISTRY 221	Research Conf in Chem, Chem Biol & Biophysics	1
CHEMISTRY 297	Chemistry and Chemical Biology Journal Club (first two years in program)	1
CHEMISTRY 250	Research	1-8
CHEMISTRY 266	Research Planning Conference	1

BIOPHYSICS 204B	Methods in Macromolecular Structure	4
	Units	13-29
Spring		
CHEMISTRY 219	Special Topics in Basic and Translational Chemical Biology <sup>1</sup>	3
CHEMISTRY 223	Scientific Communication Seminar	1
CHEMISTRY 206	Laboratory Rotation in Chemistry and Chemical Biology	1-10
CHEMISTRY 221	Research Conf in Chem, Chem Biol & Biophysics	1
CHEMISTRY 297	Chemistry and Chemical Biology Journal Club (first two years in program)	1
CHEMISTRY 250	Research	1-8
CHEMISTRY 266	Research Planning Conference	1
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
	Units	10.5-26.5
	Total Units	45.5-93.5

Choose three from all Basic Science programs, courses offered change annually

# **Non-course Core Requirements**

- New Student Orientation (NSO) before start of first year
- Attendance at annual QBC (Quantitative Biosciences Consortium)
   Betreat
- Introductory Onboarding Intensive before start of first year
- · Faculty Student Talks
- · Pass qualifying exam
- · Dissertation and exit talk

<sup>&</sup>lt;sup>2</sup> Optional for first-year CCB students.

# Clinical and Epidemiologic Research (MAS)

Visit program website. (https://epibiostat.ucsf.edu/masters-degree-clinical-research/)

Degree Offered: MAS (Master's of Advanced Studies)

Program Leadership: Elaine Ku, MD, MAS, Director Admissions Inquiries:

Clair Dunne, Program Administrator

## **Program Description**

Master's Degree Program in Clinical and Epidemiologic Research (https://epibiostat.ucsf.edu/masters-degree-clinical-research/) is a two-year program that through enhanced coursework and precepting provides trainees with mastery of clinical and epidemiologic research methods and culminates in a number of required products including a comprehensive literature review, a presentation at a national or international scientific conference, and publication of a peer-reviewed scientific paper.

For complete information on the Master's Degree Program in Clinical and Epidemiologic Research and degree tracks, please visit our website (https://epibiostat.ucsf.edu/masters-degree-clinical-research/).

# **Admission Requirements**

Possession of an undergraduate degree from an accredited institution with a minimum grade point average (GPA) of 3.0 (equal to a letter grade of "B"). Preference will be given to scholars who have demonstrated knowledge or experience in some aspect of a health-related field (e.g., clinical practice, public health, health promotion) by virtue of either possession of a graduate or professional doctoral degree (MD, DDS, PharmD, PhD or international equivalent), being currently enrolled in such a program, or relevant work experience. Although not required, this prior knowledge or experience is preferred because program scholars will be required to perform original research in an area of their choosing to fulfill graduation requirements. Prior substantive knowledge or experience in a health-related field can be very helpful in identifying a research area of interest and in maintaining motivation for the work.

Established relationship with a research mentor at UCSF, defined as a faculty member in either of the Schools of Medicine, Nursing, Pharmacy, or Dentistry. Scholars already at UCSF should have this established by the time of application. Those who are applying from outside UCSF should have this established by the beginning of the program. Applicants applying from outside UCSF are encouraged to identify and contact UCSF research mentors on their own or, after acceptance into the program, may request assistance from the TICR Program to help them identify a research mentor.

For scholars who are primarily based in other training programs or positions at UCSF, supervisor's assurance that at least 70% of time will be available August through May to divide between the activities of this program and the conduct of the trainee's clinical research projects.

Affirmation of the Professional Conduct Statement (https://ticr.ucsf.edu/documents/Professional%20Conduct%20Statement%202014\_03\_11.pdf) (signed during orientation).

Find application information on our website (https://epibiostat.ucsf.edu/admissions-0/).

## **Learning Outcomes**

To complete the program, scholars must satisfy program objectives, which are to:

- a. Acquire a mastery of a broad set of clinical research methods
- b. Plan and implement one or more clinical research projects that leads to a first-author publication
- c. Obtain experience in the instruction of clinical research methods

## **Additional Information**

### **Career Outcomes**

Find career outcomes and other data on master's programs (https://graduate.ucsf.edu/clinical-mas-statistics/) on the Graduate Division website.

# **Degree Requirements**

#### a. Courses

At least 38 guarter-units of coursework are needed for graduation. Trainees will take the majority of their coursework in the first year allowing for focus on performing independent research in the second year. Grading policy (https://ticr.ucsf.edu/programs/ grading\_policy.html) is determined by the UCSF Graduate Division. In particular, scholars should note that UCSF graduate students must maintain at least a 3.0 (B average) and that letter grades cannot be converted to "S/U" after the deadline (https://registrar.ucsf.edu/ registration/change-study-list/) for the respective quarter. It is the policy of the TICR Program that one "C" grade or less (or one "U" grade) will trigger a discussion between the program director and the student about the expected level of performance in the program. Two or more grades of "C" or less (or two or more "U" grades) will trigger a formal review by the program and the chair of the scholars' Master's Committee. This formal review will develop an individualized remediation plan to address the deficiencies. A memorandum of understanding will be generated that clearly outlines specific steps and associated timeline that the scholar must fulfill in order to return to satisfactory performance. The memorandum will be signed by the following parties: the scholar, the Master's Committee chair, and the program director. Should a scholar be unable to fulfill the expectations according to the timeline outlined in the memorandum, the student will be subject to dismissal from the program.

- b. Accomplishment of the Following Products of Clinical Research:
  - comprehensive literature critique: Each master's student composes a systematic review and critique of the literature pertinent to a specific research question (or set of related questions) in his or her research field, culminating in a five to 10-page report that demonstrates a mastery of the field's literature. The fundamental objective of this requirement is for the scholar to demonstrate that he or she can evaluate a number of papers/reports regarding a particular substantive question (or set of related questions), provide high-level critique of the threats to validity in the individual papers and then come to a conclusion about the question(s) in hand. The critique must have a methods section detailing the process for identifying and analyzing the articles. The report should be undertaken with an eye toward formal publication, but this is not required.

Students are expected, although not required, to complete this requirement by the end of the first year.

- First-authored oral or poster presentation at a national or international meeting: Students are required to submit a first-authored abstract to a nationally or internationally recognized scientific meeting/conference within the scholar's academic field and have that abstract accepted for either poster or oral presentation. It may be acceptable in selected cases, with pre-approval by the scholar's master's committee (https://epibiostat.ucsf.edu/current-students/#Masters%20Committee), to present work that was started prior to enrollment in the program. It is expected that the work represents a substantive contribution to the scholar's research field.
- Submission as first author of a peer-reviewed manuscript: Using data analyzed (but not necessarily collected) during residence in the master's program, students must prepare and submit a first-authored manuscript for publication in a peer-reviewed journal that is approved by the master's committee (https://epibiostat.ucsf.edu/current-students/#Masters%20Committee). It may be acceptable in selected cases, upon approval of the scholar's committee, to submit work that was started prior to enrollment in the program. The manuscript may be a comprehensive extension of the work submitted in abstract form to a national meeting. It is expected that the work represents a substantive contribution to the scholar's research field.

#### 3. Instructional Experience in Clinical Research:

The following requirements follow the natural progression of a research project, from a review of the existing literature to publication. Each element of the required work is relevant to student's research productivity and enhances his or her credibility as an emerging researcher. Before embarking on these products, scholars should have their concepts approved by each member of his or her master's committee (https://epibiostat.ucsf.edu/currentstudents/#Masters%20Committee).

### **Core Courses**

Program of Study for the Master's Degree Program in Clinical and Epidemiologic Research

Course	Title	Units
Year 1		
Summer		
EPIDEMIOL 201	Responsible Conduct of Research	0.5
EPIDEMIOL 202	Designing Clinical Research (Two Month)	2
EPIDEMIOL 218	Data Collection and Management for Clinical Research	1
BIOSTAT 212	Introduction to Statistical Computing in Clinical Research	1
	Units	4.5
Fall		
EPIDEMIOL 203	Epidemiologic Methods	4
EPIDEMIOL 204	Clinical Epidemiology *	3
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
EPIDEMIOL 220	Master's Seminar I	1
	Units	11
Winter		
EPIDEMIOL 205	Clinical Trials	2
EPIDEMIOL 222	Social Determinants of Health and Health Disparities	1
BIOSTAT 208	Biostatistical Methods II	3

EPIDEMIOL 220	Master's Seminar I	1
	Units	7
Spring		
EPIDEMIOL 212	Publishing and Presenting Clinical Research	1
EPIDEMIOL 214	Systematic Reviews	1
BIOSTAT 209	Biostatistical Methods III	3
EPIDEMIOL 220	Master's Seminar I	1
	Units	6
Year 2		
Fall		
BIOSTAT 210	Biostatistical Methods IV	2
EPIDEMIOL 221	Master's Seminar II	1
	Units	3
Winter		
EPIDEMIOL 221	Master's Seminar II	1
	Units	1
Spring		
EPIDEMIOL 221	Master's Seminar II	1
Electives (Sufficient num quarter units)	ber of other TICR Program Courses to achieve at least 36	2.5
	Units	3.5
	Total Units	36

<sup>\*</sup> MAS students can opt to take EPI 204 in MAS year 1 or MAS Year 2

See a sample course schedule (https://epibiostat.ucsf.edu/MAS\_curriculum/).

### **Tracks**

The master's degree program currently has two optional tracks of specialized instruction in which scholars can elect to enroll. There is one track in Data Science in Clinical Research and one track in Implementation Science. Scholars in these tracks will be required to take the core set of courses in epidemiologic and biostatistical methods that underlie clinical research and will use their elective courses for focused instruction in their track's specific objectives. Scholars may choose to join these tracks at any time during their residence in the program.

### **Data Science in Clinical Research Track**

Data Science in Clinical Research is an emerging discipline – for which there is not a standard definition — in response to the explosion of available and complex data in biomedicine and related streams. Examples of complex data include those from the laboratory (e.g., genomics and other "-omics"), biomedical imaging, electronic medical records, and other "found" data (e.g., social media). The TICR Program believes data science in the context of clinical research is best understood as an interdisciplinary hybrid of the fields of informatics, computer science, biostatistics, and epidemiology. As such, a data scientist has a broad background and expertise in accessing data, manipulating data, and forming inferences (i.e., summarizing raw data into meaningful messages) from data. A data scientist may typically not have as deep an expertise as a dedicated computer scientist, bio/clinical informatician, biostatistician, or epidemiologist in their respective fields, but instead she/he brings unique value because of his/her broad skill set accessing complex data, manipulating complex data, visualizing complex data, and being able to perform a broad array of analytic techniques.

The Data Science in Clinical Research Track of the master's degree program is tailored for researchers who seek to work in complex data environments (sometimes referred to as "Big Data") and who desire to become facile in the manipulation of large (and perhaps unstructured and

unwieldly) data structures and the summarization of data into meaningful messages. Coursework in the track (https://epibiostat.ucsf.edu/sites/g/files/tkssra2066/f/Program%20Track%20details.pdf) extends upon the basic foundation of epidemiology and biostatistics in the base master's degree program to include required and elective courses in advanced data manipulation, prediction, clustering/pattern recognition and data reduction. The Data Science in Clinical Research Track distinguishes itself from other data science training programs by being embedded into the context of human subjects-based health-related research and a solid base of epidemiology and clinical research. Many of the contextual examples used in the courses and student projects are from the life sciences and clinical care. Graduates of the Data Science in Clinical Research Track are poised to work in either leadership or supportive roles in academia, industry, or municipal health systems.

### **Implementation Science Track**

Implementation science (IS) aims to improve the adoption of evidence-based practices and policies in clinical care and public health, and the development of best evidence through community engagement. The master's program IS Track responds to the increasing concern of the World Health Organization (WHO), U.S. National Institutes of Health and Institute of Medicine that the tremendous advances we have achieved in developing effective tests, treatments and preventive measures are not being fully translated into improved population health. IS research relates to the second arm of what is popularly known as translational research: the first arm ("T1") being the translation of knowledge from the laboratory to human subjects, and the second arm ("T2") involving the translation of clinical research (behaviors, therapies, or devices) into practice in real-world settings.

The IS Track is ideal for researchers who plan to pursue the development, implementation or evaluation of policies, practice-based interventions and/or community-based programs designed to:

- a. improve uptake/safety/quality/access;
- b. reach diverse populations;
- c. reduce the overuse of diagnostic tests or treatments; or
- d. provide preventative medicine or health promotion programs.

Coursework in the track is guided by a conceptual framework (https://ticr.ucsf.edu/documents/IDS\_Framework\_Nov2009.ppt) that illustrates the different groups and organizations targeted by implementation research, and emphasizes the importance of interdisciplinary collaboration and community participation for the effective translation of evidence into practice. Master's program scholars who elect the IS Track typically begin coursework in the spring quarter of their first year and typically enroll in at least one IS course per quarter during the second year. In addition to course requirements (https://epibiostat.ucsf.edu/sites/g/files/tkssra2066/f/Program%20Track%20details.pdf), IS Track scholars receive career mentoring and specialized feedback on their research protocols. Scholars completing this track may list "Master of Advanced Study, Clinical Research with Specialization in Implementation Science" on their curriculum vitae.

The IS Track is co-sponsored by the UCSF Implementation Science Program and is directed by Dr. Maria Garcia (https://profiles.ucsf.edu/maria.garcia/) and Dr. Priya Shete (https://directory.ucsf.edu/people/search/id/52258/) . One distinction of IS research is its emphasis on multidisciplinary collaboration and teamwork. The IS track increases scholars' exposure to and contact with a broad spectrum of UCSF faculty

conducting IS research — an important step in developing a research network that scholars can call upon throughout their careers.

### **Clinical Informatics Track - New for 2024-2025**

For current details of this track, please visit our curriculum page (https://epibiostat.ucsf.edu/MAS\_curriculum/).

# **Computational Precision Health** (PhD)

Visit program website. (https://computationalhealth.ucsf.edu/)

**Degree Offered**: PhD **Program Leadership**:

Ida Sim, MD, PhD, Program Director, UCSF Maya Petersen, MD, PhD, Program Director, UCB

Daniel Wolfe, Executive Director **Admissions Inquiries**:

Bianca Victorica, Graduate Student Affairs Officer

# **Program Description**

The UCSF UC Berkeley Joint Program in Computational Precision Health (CPH) is building a new discipline at the intersection of artificial intelligence and machine learning, new statistical method, clinical and public health practice, and equity. The program leverages the expertise in computer science and statistics at UC Berkeley, the health data, excellence in clinical practice and bioinformatics at UCSF, and the commitment to population health at both institutions to create a first-in-kind interdisciplinary PhD training program.

Students in the PhD in Computational Precision Health develop skills and expertise in both the **computational sciences** (machine learning and Al, natural language processing, statistical inference and modeling, data standards, parallel computing and data at scale, etc.) and **health sciences** (clinical decision sciences and cognitive informatics, clinical delivery, clinical research, implementation science, health information policy, etc.)

Students develop the ability to work in interdisciplinary teams from ideation to development, testing, and validation in the real world. Coursework is complemented by extensive and early interaction with world-class faculty – through research rotations, seminar series, and practicums – at the intersection of computation and health, and will develop proficiency in cross-disciplinary research and communication. A focus on diversity, equity and inclusion, human-centered design accommodating diverse users, and the ethical implications and societal impacts of the work are embedded throughout the program.

### **Faculty**

CPH faculty are members of the Joint Augmented Graduate Group in Computational Precision Health. There are currently more than 60 faculty members: four with primary appointment in CPH, with others from multiple departments across UCSF and UC Berkeley. UCSF faculty hail from all UCSF clinical sites, reflecting the diversity of populations and care settings across San Francisco.

# **Learning Outcomes**

Students in the PhD in Computational Precision Health will develop skills and expertise in both the **computational sciences** (machine learning and AI, natural language processing, statistical inference and modeling, data standards, parallel computing and data at scale, etc.) and **health sciences** (clinical decision sciences and cognitive informatics, clinical delivery, clinical research, implementation science, health information policy, etc.)

### **Additional Information**

### **Program Core Faculty**

 Find a program faculty list (https://computationalhealth.ucsf.edu/ faculty/) on the program website.

# **Degree Requirements**

- Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three quarters (enrolled in 8 units of Research in each quarter) after advancement to candidacy.
- · Pass qualifying examination
- · Completion and submission of the Dissertation
- For additional details, please see: https://graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

Code	Title	Units
COMP HLTH 200A	Computational Precision Health Cornerstone	3
COMP HLTH 200B	Computational Precision Health Cornerstone	3
COMP HLTH 200C	Computational Precision Health Cornerstone	3
COMP HLTH 215	Lab Rotation	2-8
COMP HLTH 270	Computational Precision Health Seminar	3
GRAD 202	Racism in Science	3
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
CPH Practicum Series (TBD)	3 units, 2 terms (Second Year)	3
Foundational Courses (TBD)	Minimum of four classes, selected in close consultation with their Academic Adviser (First Year) or Research Adviser(s) (Second Year)	
Advanced Electives (TBD)	Minimum of two advanced electives, based on intended dissertation work.	

# **Dentistry Postgraduate Program - Certificate**

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/)

**Degree Offered:** Certificate **Admissions Inquiries:** 

Pam Kibrick, Postgraduate Program Coordinator

# **Program Description**

The School of Dentistry offers postgraduate certificates in the following specialties:

- · Dental Public Health (p. 129)
- · Oral Medicine (p. 130)
- · Orthodontics (p. 132)
- Pediatric Dentistry (p. 134)
- · Periodontology (p. 136).

Length of study varies from one to three years. Oral Medicine, Orthodontics, Pediatric Dentistry and Periodontology students enrolled in the combined certificate and Master's in Oral and Craniofacial Sciences program simultaneously complete a master's in Oral and Craniofacial Sciences. Dental Public Health is a one-year program and is separate from the combined program.

# **Developmental and Stem Cell Biology** (PhD)

Visit program website. (https://dscb.ucsf.edu)

**Degree Offered:** PhD **Program Leadership:** Todd Nystul, PhD, Co-Director

Todd Nystul, PhD, Co-Director Julie Sneddon, PhD, Co-Director

Admissions Inquiries: dscbadmissions@ucsf.edu

# **Program Description**

The Developmental and Stem Cell Biology PhD program builds upon the outstanding strengths of basic and translational research at UCSF. It provides training in five overlapping and interrelated thematic areas: stem cells and cell differentiation, organogenesis and tissue regeneration, pattern formation and morphogenesis, evolutionary developmental biology and translational efforts using stem cells in disease modeling and drug screening. The DSCB Program offers an integrated and multidisciplinary educational opportunity for graduate students pursuing careers in these rapidly expanding fields.

### **Faculty**

The DSCB program includes faculty members from various clinical and basic science departments with a wide range of interests. Most DSCB faculty have ongoing laboratory projects that span multiple thematic areas.

The DSCB program coordinates its activities with a variety of cross-campus entities including the Eli and Edythe Broad Center of Regeneration Medicine and Stem Cell Research (https://stemcell.ucsf.edu/), the Smith Cardiovascular Research Institute (https://cvri.ucsf.edu/), the Helen Diller Family Comprehensive Cancer Center (https://cancer.ucsf.edu/), the UCSF Diabetes Center (https://diabetes.ucsf.edu/), and the Gladstone Institutes (https://gladstone.org/).

### **Sub-disciplines**

- · Stem cells and cell differentiation
- · Organogenesis and tissue regeneration
- · Pattern formation and morphogenesis
- Evolutionary developmental biology
- · Translational stem cell biology

The DSCB program is offered by the UCSF Graduate Division, administered by the UCSF Graduate Medical Education Unit (GMU), and delivered by faculty members in the UCSF schools of dentistry and medicine.

# **Learning Outcomes**

The goal of our predoctoral program is to provide broad-based, interdisciplinary training in developmental biology. Because the field is likely to change as much in the next decade as in the past 40 years, a broad education in diverse subjects with a dynamic curriculum offers the best means to meet future challenges. Students are therefore educated in a range of core disciplines and medically relevant fields including genetics, molecular biology, cell biology, biochemistry, biostatistics, and, especially, developmental biology. They are provided with training in a wide range of techniques and given opportunities to address biological

and biomedical questions in a variety of organisms with cutting edge technology in state-of-the-art laboratories. Particular emphasis is placed on learning to think critically, formulate hypotheses, design experiments, write and present clearly, and conduct rigorous research ethically and responsibly. By promoting their intellectual growth and experimental skills, the DSCB program teaches students how to become independent, innovative scientists who are able to recognize important questions to investigate and be equipped to contribute at the highest levels to developmental biology for decades to come.

### **Additional Information**

### **Program Core Faculty**

 Find a program faculty list (https://dscb.ucsf.edu/faculty/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate
Division website.

# **Degree Requirements**

- · Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three quarters (enrolled in 8 units of DEV STMCEL 250 Research in each quarter) after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

Course	Title	Units
Year 1		
Fall Quarter		
GRAD 202	Racism in Science	3
DEV STMCEL 257	Developmental and Stem Cell Biology	4
DEV STMCEL 216	Journal Club <sup>1</sup>	3
DEV STMCEL 215	Laboratory Rotation <sup>2</sup>	3
DEV STMCEL 217	Seminar Series <sup>1</sup>	3
	Units	16
Winter Quarter		
GENETICS 200A	Principles of Genetics	3
DEV STMCEL 216	Journal Club <sup>1</sup>	3
DEV STMCEL 215	Laboratory Rotation <sup>2</sup>	3
DEV STMCEL 217	Seminar Series <sup>1</sup>	3
	Units	12
Spring Quarter		
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
DEV STMCEL 270	Special Topics in Developmental & Stem Cell Biology 3	3
DEV STMCEL 216	Journal Club <sup>1</sup>	3
DEV STMCEL 215	Laboratory Rotation <sup>2</sup>	3
DEV STMCEL 217	Seminar Series <sup>1</sup>	3
	Units	13.5
Year 2		
Fall Quarter		
DEV STMCEL 216	Journal Club <sup>1</sup>	3

DEV STMCEL 217	Seminar Series <sup>1</sup>	3
	Units	6
Winter Quarter		
DEV STMCEL 216	Journal Club <sup>1</sup>	3
DEV STMCEL 217	Seminar Series <sup>1</sup>	3
	Units	6
Spring Quarter		
DEV STMCEL 216	Journal Club <sup>1</sup>	3
DEV STMCEL 217	Seminar Series <sup>1</sup>	3
	Units	6
	Total Units	59.5

### **Elective Requirement**

Can be fulfilled by taking two minicourses **or** a full-length course.

### **Approved Electives**

Code	Title	Units
BIOENGR 221	Tissue Mechanobiology	2.5-3
BIO MD INF 203	Biocomputing Algorithms	4
BIO MD INF 206	Statistical Methods for Bioinformatics	4
BIOCHEM 241	Startup 101	3
OR CRA FAC 221	Current Concepts in Oral Biology	2.5
Other elective courses mappropriate.	ay be approved by the program as	

# **Non-course Core Requirements**

- Teaching Assistantship One quarter; 2nd year
- Qualifying Exam Must take before 8/31 of second year in program.

<sup>1 6</sup> quarters required
2 3 rotations required
3 Three instances of this course are required, or students can take other basic science minicourses to fulfill this requirement.

# **Doctor of Dental Surgery (DDS)**

Visit program website. (https://dentistry.ucsf.edu/)

Degree Offered: Doctor of Dental Surgery

#### Program Leadership:

Michael S. Reddy, DMD, DMSc Dean, School of Dentistry Associate Vice Chancellor, Oral Health Affairs

Jennifer Perkins, DDS, MD Assistant Dean of Education Executive Director of Clinical Education, School of Dentistry Associate Professor, Oral and Maxillofacial Surgery

Jack Gormley, Ed.D.

Assistant Dean for Learner Success and Belonging, School of Dentistry

#### **Admissions Inquiries:**

Daliah Williams, Manager of Admissions Operations and Data

## **Program Description**

The University of California, San Francisco (UCSF) School of Dentistry provides a unique balance of clinical excellence, research opportunities and community service as part of one of the leading health science centers in the nation. Since its founding in 1881, the School of Dentistry has evolved from the lone outpost of dental education west of the Mississippi into an international leader in the education of oral health care practitioners and scholars, comprehensive dental care, and breakthrough research. The school has a tradition of service, strong clinical programs that prepare dentists for the future, and research activities at the vanguard of contemporary science.

We are looking for candidates who share the school's educational objectives and enthusiasm for our robust curriculum. We look for evidence of past achievements and outstanding personal qualities as well as interest in contributing to the advancement of knowledge and service to health care through dental professions.

We seek learners who will return to their communities with the clinical, intellectual, and interpersonal skills expected of a health professional. Our graduates should possess the enhanced sensitivities, broad understanding, open-minded attitudes, and appreciation of cultural diversity to ensure equitable distribution of high-quality dental health care to all members of our society. Further, we seek people who have the discipline to apply themselves, the desire to use their talents and abilities to the full, and the willingness to undertake leadership roles in academia, in dentistry, and beyond.

### Curriculum

UCSF and the School of Dentistry attach importance to creating a culture and environment that promotes student engagement and offers all students an opportunity to be involved in its quality systems. The school is committed to working in partnership with its students in order to enhance all aspects of the student experience. Accordingly, our courses (as listed below) and curriculum are subject to continuous quality improvement and may change in response to feedback and learner needs.

We believe all UCSF dental graduates deserve mastery in procedural and clinical skills coupled with laser-focused critical thinking to prepare them for the next steps in their career, whether clinical practice, research, academia, public sector, or some combination. Students, faculty and staff work as a team to provide scientifically based patient-centered care. We are proud to develop clinicians who graduate as competent dentists, and as scientists.

# **Admission Requirements**

The UCSF School of Dentistry Admissions Committee takes a holistic approach to the admissions process, considering all aspects of the application, including but not limited to: academic background; motivation for a dental career; potential for future success in the program and dentistry as indicated by past achievements and present commitments; and participation in one or more interviews. Encouraging applicants from all socio-economic and cultural backgrounds and identities, we are committed to increasing the number of oral health professionals from historically underrepresented or marginalized groups.

### **Applications**

UCSF School of Dentistry DDS applications are processed through the American Dental Education Association - American Association of Dental Schools Application Service (ADEA AADSAS). The application can be submitted starting June 1 (accessible starting mid-May) and must be electronically submitted no later than 11:59 p.m. (EST) on October 31. We advise you to begin your ADEA AADSAS application early to allow yourself sufficient time to complete it by the deadline. Late applications will not be considered.

### **Supplemental Questions**

The UCSF School of Dentistry DDS supplemental questions are in the UCSF school section of the ADEA AADSAS application.

### **Transcripts and Coursework**

On the ADEA AADSAS application, please submit the following:

- In the "Colleges Attended" section, report all colleges or universities attended, including any coursework taken at a foreign institution or study abroad program.
- In the "Transcript Entry" section, enter all courses taken. This
  includes any coursework taken at a foreign institution or study
  abroad program, if the ADEA AADSAS system allows you to do so.
  This option is not available for most non-U.S. schools.

Request official transcripts from all U.S. and English-speaking Canadian colleges attended to be sent to ADEA AADSAS for verification.

Transcripts must be received by ADEA no later than October 31. Please see our International Coursework section for information about reporting international and study abroad coursework.

### **U.S. Dental Admission Test (DAT)**

The DAT is also required. We recommend that the DAT be taken no later than September 30 so that your official scores may be uploaded to your ADEA AADSAS application by our application deadline of October 31. Applications without official DAT scores received by the deadline will be regarded as incomplete and will not be reviewed. Test scores are valid for only two years; scores accepted for the 2024-2025 admission cycle must be dated no earlier than January 1, 2022.

### **Letters of Recommendation**

Three letters of recommendation must be submitted via the ADEA AADSAS application. All letters must be received by ADEA AADSAS by the October 31 deadline.

### **UCSF** Fee

The University of California requires a non-refundable application processing fee of \$75. Please visit our online payment system to submit it electronically.

### **Course Prerequisites**

You must complete a minimum of 139 quarter units or 93 semester units (exclusive of repeated and nontransferable courses) of college work:

- Units must be earned at an accredited U.S. or English-speaking Canadian institution.
- At least 43 quarter units or 29 semester units must be completed at a four-year institution.
- Up to 96 quarter units or 64 semester units can be accepted from a community college.
- You must earn at least a "C -" grade in requirements "a" through "g."

We recommend that you complete the prerequisites before taking the Dental Admissions Test (DAT) and filing an application. Find specific details on units and subjects (https://dentistry.ucsf.edu/programs/dds/admissions/prerequisites/)

### **Helpful Links**

- COVID-19 Related Information for Applicants (https://dentistry.ucsf.edu/programs/dds/admissions/)
- UCSF School of Dentistry Admissions Policies (https://dentistry.ucsf.edu/programs/dds/admissions/admissions-policies/)
- UCSF School of Dentistry DDS Admissions Website (https://dentistry.ucsf.edu/programs/dds/admissions/)

# **Learning Outcomes**

The School of Dentistry has twelve competency statements that a student dental graduate must demonstrate. Two are UCSF campus wide statements and ten are School of Dentistry (dental professional) specific. They are listed on the SOD Competency Standards page (https://wiki.library.ucsf.edu/display/SODEducation/Competency+Standards/) and the SOD website (https://dentistry.ucsf.edu/students/education/competency-standards/).

These statements represent broad levels of academic and clinical achievement, measured by specific faculty evaluations and written and clinical examinations at various times during the academic program. These fundamental competencies prepare the graduate for lifelong learning and success with achieving licensure, and the safe practice of general dentistry.

The School of Dentistry defines a general dentist graduate as: "An oral health care provider who can evaluate, diagnose, prevent, and treat diseases and conditions of the oral cavity. A UCSF School of Dentistry graduate is a novice provider who is able to provide safe and effective treatment to the extent of their training and has the judgment to know when to refer for more complex treatment."

As part of the program, students are required to challenge a number of individual high-stakes competency examinations. Competency is a complex behavior or ability essential for the general dentist to begin

independent and unsupervised dental practice. Competency includes knowledge, experience, critical thinking, problem-solving, professionalism, ethical values and procedural skills. These components of competency become an integrated whole during the delivery of patient care.

## **Additional Information**

### **Program Core Faculty**

Find a program faculty list (https://dentistry.ucsf.edu/programs/dds/faculty/) on the program website.

# **Degree Requirements**

The UCSF School of Dentistry pre-doctoral curriculum is four years (or the equivalent) in length and covers the broad range of science, art and technology in contemporary dental practice. We believe all UCSF dental graduates deserve mastery in procedural and clinical skills coupled with laser-focused critical thinking to prepare them for the next steps in their career, whether clinical practice, research, academia, public sector, or some combination. Students, faculty and staff work as a team to provide scientifically based patient-centered care. We are proud to develop clinicians who graduate as competent dentists, and as men and women of science.

UCSF School of Dentistry Competency Standards (https://wiki.library.ucsf.edu/display/SODEducation/Competency+Standards/)

The faculty will recommend the awarding of degrees in accordance with Academic Senate regulations for the Doctor of Dental Surgery. Candidates for the degree Doctor of Dental Surgery are required to:

- a. Complete and pass all core courses in the dental curriculum with grades of P or H.
- b. Complete and pass all clinical requirements.
- Satisfy required standards of professionalism of the School of Dentistry.

Course	Title	Units
Year 1		
Fall Quarter		
BIOMED SCI 116	Structure of Cells, Tissues, and Organs	8
DENTALSCI 129	Introduction to Dentistry	2.5
PRV RS DEN 116	Morphology, Restorative Technique, & Biomaterials	4
PT CN CARE 111	Principles of Interprofessional Practice I	0.5
PT CN CARE 117	Introduction to Comprehensive Care I	2
SCIMETHODS 117	Foundations of Scientific Inquiry	2
	Units	19
Winter Quarter		
BIOMED SCI 117	Infection and Host Response; Cell Physiology	8
DENTALSCI 116	Oral Structure and Development	2
PRV RS DEN 117	Restorative Technique, Crown & Bridge, & Biomaterials I	5.5
PT CN CARE 111	Principles of Interprofessional Practice I	0.5
PT CN CARE 118	Introduction to Comprehensive Care II	2.5
	Units	18.5
Spring Quarter		
BIOMED SCI 118	Organ Systems and Human Pathophysiology I	8.5
DENTALSCI 117	Etiologies and Risk Factors in Dental Diseases	2
PRV RS DEN 118	Restorative Technique, Crown & Bridge, & Biomaterials II	6
PT CN CARE 111	Principles of Interprofessional Practice I	0.5
PT CN CARE 119	Introduction to Comprehensive Care III	2.5

SCIMETHODS 118	Professional and Community Oral Health Issues	2.5
Year 2	Units	22
Summer		
DENTALSCI 127	Orofacial Pain: Foundations for Diagnosis and Treatment	2
PT CN CARE 129	Introduction to Comprehensive Care IV	16.5
PRV RS DEN 126	Removable Partial Dentures, Crown & Bridge, & Operative	6
	Units	24.5
Fall Quarter		
BIOMED SCI 127	Oral Pathology	2
DENTALSCI 125	Fundamentals of Risk Assessment, Therapy, and Prevention I	2
PRV RS DEN 127	Complete Dentures, Endodontics, & Adv Restorative Technique	5.5
PT CN CARE 112	Principles of Interprofessional Practice II	0.5
PT CN CARE 129	Introduction to Comprehensive Care IV	16.5
	Units	26.5
Winter Quarter	Employmentals (CELLA)	_
DENTALSCI 126	Fundamentals of Risk Assessment, Therapy, and Prevention II	2
PRV RS DEN 128	Complete Dentures, Fixed Partial Dentures & Endodontics	10.5
PT CN CARE 112	Principles of Interprofessional Practice II	0.5
PT CN CARE 129	Introduction to Comprehensive Care IV	16.5
	Units	29.5
Spring Quarter	Oral Physical and Oral scient Dairy and TMD	
DENTALSCI 128	Oral Physiology, Orofacial Pain, and TMD	4
PRV RS DEN 129 PT CN CARE 112	Implant and Pediatric Dentistry	0.5
PT CN CARE 112 PT CN CARE 128	Principles of Interprofessional Practice II Introduction to Comprehensive Adult Dentistry	7.5
T T ON OATE 120	Units	13
Year 3		
Summer		
PT CN CARE 102A	Clinical Fixed Prosthodontics and Implants I	1
PT CN CARE 104A	Management &Treatment of Periodontal Diseases I	1
PT CN CARE 106AD	Clinical Oral Medicine Rotation	1.5
PT CN CARE 107A	Clinical Endodontics I	0.5
PT CN CARE 108A	Clinical Removable Prosthodontics I	0.5
PT CN CARE 109A	Clinical Oral Surgery Rotation I	2.5
PT CN CARE 131	Foundations in General Dentistry I	4.5
PT CN CARE 139A	Comprehensive Adult General Dentistry I	5.5
		3.3
Fall Quarter	Units	17
PT CN CARE 102A	Units	17
PT CN CARE 102A PT CN CARE 104A	Units  Clinical Fixed Prosthodontics and Implants I	17
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I	17 1 1 1.5 0.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I	17 1 1.5 0.5 0.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I  Clinical Oral Surgery Rotation I	17 1 1.5 0.5 0.5 2.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132	Units  Clinical Fixed Prosthodontics and Implants I Management &Treatment of Periodontal Diseases I Clinical Oral Medicine Rotation Clinical Endodontics I Clinical Removable Prosthodontics I Clinical Oral Surgery Rotation I Foundations in General Dentistry II	17 1 1 1.5 0.5 0.5 2.5 4.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132	Units  Clinical Fixed Prosthodontics and Implants I Management &Treatment of Periodontal Diseases I Clinical Oral Medicine Rotation Clinical Endodontics I Clinical Removable Prosthodontics I Clinical Oral Surgery Rotation I Foundations in General Dentistry II Comprehensive Adult General Dentistry I	17 1 1.5 0.5 0.5 2.5 4.5 5.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132 PT CN CARE 139A	Units  Clinical Fixed Prosthodontics and Implants I Management &Treatment of Periodontal Diseases I Clinical Oral Medicine Rotation Clinical Endodontics I Clinical Removable Prosthodontics I Clinical Oral Surgery Rotation I Foundations in General Dentistry II	17 1 1 1.5 0.5 0.5 2.5 4.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132 PT CN CARE 139A Winter Quarter	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I  Clinical Oral Surgery Rotation I  Foundations in General Dentistry II  Comprehensive Adult General Dentistry I  Units	17 1 1 1.5 0.5 0.5 2.5 4.5 5.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132 PT CN CARE 139A Winter Quarter PT CN CARE 102A	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I  Clinical Oral Surgery Rotation I  Foundations in General Dentistry II  Comprehensive Adult General Dentistry I  Units  Clinical Fixed Prosthodontics and Implants I	17 1 1 1.5 0.5 0.5 2.5 4.5 5.5 17
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132 PT CN CARE 139A  Winter Quarter PT CN CARE 102A PT CN CARE 104A	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I  Clinical Oral Surgery Rotation I  Foundations in General Dentistry II  Comprehensive Adult General Dentistry I  Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I	17 1 1 1.5 0.5 0.5 2.5 4.5 5.5 17
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132 PT CN CARE 139A  Winter Quarter PT CN CARE 102A PT CN CARE 104A PT CN CARE 104A PT CN CARE 106AD	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I  Clinical Oral Surgery Rotation I  Foundations in General Dentistry II  Comprehensive Adult General Dentistry I  Units  Clinical Fixed Prosthodontics and Implants I	17 1 1 1.5 0.5 0.5 2.5 4.5 5.5 17 1 1.5 1.5
PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132 PT CN CARE 139A  Winter Quarter PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I  Clinical Oral Surgery Rotation I  Foundations in General Dentistry II  Comprehensive Adult General Dentistry I  Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation	17 1 1 1.5 0.5 0.5 2.5 4.5 5.5 17
Fall Quarter PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 108A PT CN CARE 109A PT CN CARE 132 PT CN CARE 139A  Winter Quarter PT CN CARE 102A PT CN CARE 104A PT CN CARE 106AD PT CN CARE 107A PT CN CARE 107A PT CN CARE 108A PT CN CARE 108A PT CN CARE 108A PT CN CARE 109A	Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I  Clinical Removable Prosthodontics I  Clinical Oral Surgery Rotation I  Foundations in General Dentistry II  Comprehensive Adult General Dentistry I  Units  Clinical Fixed Prosthodontics and Implants I  Management &Treatment of Periodontal Diseases I  Clinical Oral Medicine Rotation  Clinical Endodontics I	17 1 1 1.5 0.5 0.5 2.5 4.5 5.5 17 1 1.5 0.5

PT CN CARE 130WI	Winter Community-Based Learning Lectures	0.5
PT CN CARE 139A	Comprehensive Adult General Dentistry I	5.5
	Units	17.5
Spring Quarter		
PT CN CARE 102A	Clinical Fixed Prosthodontics and Implants I	1
PT CN CARE 104A	Management &Treatment of Periodontal Diseases I	1
PT CN CARE 106AD	Clinical Oral Medicine Rotation	1.5
PT CN CARE 107A	Clinical Endodontics I	0.5
PT CN CARE 108A	Clinical Removable Prosthodontics I	0.5
PT CN CARE 109A	Clinical Oral Surgery Rotation I	2.5
PT CN CARE 112	Principles of Interprofessional Practice II	0.5
PT CN CARE 134	Foundations in General Dentistry IV	4.5
PT CN CARE 130SP	Spring Community-Based Learning Lectures	0.5
PT CN CARE 139A	Comprehensive Adult General Dentistry I	5.5
	Units	18
Year 4		
Summer		
PT CN CARE 101C	Community Clinics Externship Course	8
PT CN CARE 102CD	Clinical Fixed Prosthondontics and Implants II	1
PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
	II	
PT CN CARE 105CD	Clinical Pediatric Dentistry Rotation II	2
PT CN CARE 107CD	Clinical Endodontics II	0.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5
PT CN CARE 141	Advanced General Dentistry I: 21st Century Clinical Topics	1
PT CN CARE 149C	Comprehensive Adult General Dentistry II	6.5
	Units	25
Fall Quarter		
PT CN CARE 101C	Community Clinics Externship Course	8
PT CN CARE 102CD	Clinical Fixed Prosthondontics and Implants II	1
PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
PT CN CARE 105CD	Clinical Pediatric Dentistry Rotation II	2
PT CN CARE 107CD	Clinical Endodontics II	0.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5
PT CN CARE 142	Advanced General Dentistry II: The Business of Dentistry	1.5
PT CN CARE 149C	Comprehensive Adult General Dentistry II	6.5
	Units	25.5
Winter Quarter		
PT CN CARE 101C	Community Clinics Externship Course	8
PT CN CARE 102CD	Clinical Fixed Prosthondontics and Implants II	1
PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
PT CN CARE 107CD	Clinical Endodontics II	0.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5
PT CN CARE 143	Advanced General Dentistry III: Practice Mngmt & Acquisition	1
PT CN CARE 149C	Comprehensive Adult General Dentistry II	6.5
	Units	23
Spring Quarter		
PT CN CARE 101C	Community Clinics Externship Course	8
PT CN CARE 102CD	Clinical Fixed Prosthondontics and Implants II	1
PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
	II	
PT CN CARE 107CD	Clinical Endodontics II	0.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5

PT CN CARE 144	Adv Gen Dent IV: Integrated Clinical Case Pres & Cont QI	1
PT CN CARE 149C	Comprehensive Adult General Dentistry II	6.5
	Units	23
	Total Units	319

# Non-course Core Requirements Technical Standards

In order to successfully complete the DDS degree, participate in all necessary aspects of dental training, and meet licensing requirements, a student must possess a minimum of certain essential physical and cognitive and emotional abilities. The standards are:

- Observation
- Communication
- · Motor function
- · Behavioral and social attributes
- · Ethical and Legal Standards

Find complete description of the technical standards requirement (https://dentistry.ucsf.edu/programs/dds/admissions/technical-standards/). All students will be asked to certify that they meet the minimum technical standards to pursue dental education.

# **Doctor of Medicine (MD)**

Visit program website. (https://meded.ucsf.edu/md-program/)

**Degree Offered:** MD **Program Leadership:** 

Karen Hauer MD, PhD, Vice Dean for Education

**Admissions Inquiries:** 

Matt Trojnar, Director of Admissions

# **Program Description**

At UCSF, the purpose of medical education is to educate learners who will improve the health of our communities and alleviate suffering due to illness and disease in our patients. The UCSF School of Medicine Bridges Curriculum educates MD graduates to excel in the competencies needed by 21 st-century physicians. Our students work collaboratively with interprofessional teams to provide compassionate patient care while broadening their knowledge, advancing science, and seeking new ways to improve health care delivery in their communities and nationwide.

The MD program objectives (https://meded.ucsf.edu/md-program/current-students/curriculum/md-program-objectives/) are defined by seven core MD competencies (https://meded.ucsf.edu/md-program/current-students/curriculum/md-competency-milestones/): patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, systems-based practice, and interprofessional collaboration.

The Bridges Curriculum is a three-phase, fully integrated curriculum delivered over four years:

- Foundations 1 (https://meded.ucsf.edu/foundations-1/): Students
  gain foundational knowledge in basic and clinical sciences while
  building the habits of mind of an inquiring physician, contributing to
  the health of patients and improving the delivery of health care.
- Foundations 2 (https://meded.ucsf.edu/foundations-2/): During their immersion in team-based clinical settings, students advance their patient care and systems improvement skills, while revisiting core concepts in foundational science as they relate to patient care decisions.
- Career Launch (https://meded.ucsf.edu/career-launch/): During this individualized phase of the curriculum, students choose clinical experiences and a scholarly project aligned with their career goals.

Learn more about the Bridges Curriculum (https://meded.ucsf.edu/md-program/current-students/curriculum/bridges-curriculum-overview/)

# **Admission Requirements**

Premedical students should pursue a four-year undergraduate curriculum and obtain a baccalaureate degree before entering medical school. Prerequisite courses include: a year of biology with laboratory, a year of chemistry including at least one semester of organic chemistry, at least semester of physics, and one course in biochemistry. While these courses constitute the basic foundation for all applicants, most successful applicants will have gone beyond these prerequisites and will have demonstrated the ability to perform at a high level academically. Applicants should take the Medical College Admission Test (MCAT) prior to entry at the medical school. UCSF considers the unique qualifications of each individual applicant. Consistent with this philosophy, UCSF accepts students with a wide range of undergraduate pursuits and accomplishments. Student selection is based on an appraisal of those intellectual and personal characteristics that the admissions committee

regards as desirable for prospective medical students and physicians. Both cognitive and non-cognitive factors play an important part in the selection process. For more information, please visit meded.ucsf.edu/admissions-md-program (https://meded.ucsf.edu/admissions-md-program/).

# **Learning Outcomes**

The MD program objectives are the graduation milestones for the UCSF School of Medicine. Upon graduation from the UCSF MD Program, students are required to have demonstrated competence in the competencies listed below. For each competency, a set of milestones defines the expected progress throughout medical school toward achieving competence.

### **Patient Care**

Graduates will be able to:

- Gather complete and focused histories from patients, families, and electronic health records in an organized manner, appropriate to the clinical situation and the individual, interpersonal, and structural factors that impact health
- Conduct complete and focused physical exams, using technologyenhanced physical diagnosis tools where appropriate, interpreting abnormalities and maintaining patient comfort
- Present encounters efficiently, including relevant gathered information, assessment, and plan
- Document patient encounters accurately, efficiently, and promptly including independent authorship for reporting of information, assessment, and plan
- Perform common procedures safely and correctly, including participating in obtaining informed consent, following universal precautions and sterile technique, and attending to patient comfort
- Manage patients as part of a team, including prioritizing patient care tasks efficiently to provide high-quality care that addresses their medical and social needs

### Medical Knowledge

Graduates will be able to:

- For the UCSF 49, establish and maintain knowledge necessary for the preventive care, diagnosis, treatment, and management of medical problems
- Through an inquiry-oriented and analytic approach to learning and patient care, develop and implement approaches for generating and applying new knowledge, including an individual course of study that emphasizes inquiry, discovery, and dissemination
- For the UCSF 49, select, justify, and interpret diagnostic tests and imaging
- · For the UCSF 49, diagnose and explain clinical problems
- Use electronic decision support tools to inform clinical reasoning and decision making
- For the UCSF 49, select and apply basic preventive, curative, and/or palliative therapeutic strategies

### **Practice-Based Learning and Improvement**

Graduates will be able to:

 Locate, appraise, and apply evidence from scientific studies related to patients' health needs

- Critically reflect on one's own performance to identify strengths and challenges; reflect on and address the impact that personal biases, identity, and privilege have on interactions and decision-making; set learning and improvement goals; and engage in learning activities that address one's gaps in knowledge, skills, and/or attitudes
- Employ strategies for seeking, receiving, acting upon, and delivering feedback, and contribute to a culture of openness to and appreciation of feedback

### **Interpersonal and Communication Skills**

Graduates will be able to:

- Communicate effectively in interpersonal and electronic communications with patients, families, peers, and other team members of diverse backgrounds, languages, cultures, and communities using strategies to build alliances, promote inclusion and equity, and ensure patient, peer, or other team members' understanding
- Demonstrate sensitivity, honesty, and compassion in difficult conversations with patients and families
- Share and elicit information and negotiate management plans using shared decision making with patients and their families
- Anticipate, interpret, and respond to one's own and others' emotions to manage interpersonal interactions effectively

### **Professionalism**

Graduates will be able to:

- Form relationships with patients, families, and colleagues that demonstrate sensitivity and responsiveness to how others define their culture, race/ethnicity, age, socioeconomic status, gender, gender identity, sexual orientation, religion, spirituality, disabilities, and other aspects of diversity and identity
- Demonstrate respect, compassion, honesty, and integrity when interacting with patients, families, colleagues, and teams
- Balance the needs of patients and health care team with one's own needs
- Recognize the need for additional help or supervision and seek it accordingly
- Demonstrate accountability and reliability, including initiative, responsiveness, and follow-through, in interactions with patients, families, and colleagues in interpersonal and electronic communications, including electronic health records
- Practice with a commitment to ethical principles, social justice, and societal needs, including maintaining patient confidentiality, responding to medical errors and healthcare disparities, respecting patient autonomy, maintaining appropriate boundaries, and using electronic communications, including social media, appropriately
- Adhere to institutional, regulatory, and professional standards and administrative expectations; personal, patient, and public safety; adhere to principles of ethical research; and manage conflicts of interest
- Demonstrate healthy coping mechanisms to respond to stress, including using resources to promote wellness and maintain professional behavior
- Demonstrate ongoing commitment to one's own professional identity formation as a physician accountable to patients, society, and the profession

### **Systems-Based Practice**

Graduates will be able to:

- Collaborate to coordinate patient care within and across health care systems, including patient hand-offs
- · Participate in a systematic approach to promote patient safety
- Participate in continuous improvement in a clinical setting, utilizing a systematic and team-oriented approach to improve the quality and value of care for patients and populations
- Apply understanding of current and historical factors affecting health equity, including structural inequalities in access to and quality of health care, to improve the health of patients and communities

### **Interprofessional Collaboration**

Graduates will be able to:

- Use the knowledge of one's own role in different teams and settings and the roles of other health professionals to assess and address the health care needs of patients and populations
- Communicate with other health professionals in a responsive and responsible manner that supports a collaborative approach to the maintenance of health and the treatment of disease in patients and populations
- Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust

### **Dual Degree/Special Programs**

Students in special programs may have additional requirements. Learn more (https://meded.ucsf.edu/md-program/prospective-students/admissions-md-program/degrees-and-programs/education-programs/).

- MD/Masters in Advanced Studies (MD/MAS) (https:// meded.ucsf.edu/md-program/prospective-students/admissions-mdprogram/degrees-and-programs/education-programs/#MD/MAS)
- MD with Distinction (https://meded.ucsf.edu/md-program/ prospective-students/admissions-md-program/degrees-andprograms/education-programs/#MD-with-Distinction)
- Medical Scientist Training Program (MSTP) (https://meded.ucsf.edu/ md-program/prospective-students/admissions-md-program/degreesand-programs/education-programs/#MSTP)
- · UC Berkeley UCSF Joint Medical Program (MD, MS) (p. 144)
- MD, Masters of Public Health (MS) Program (https://meded.ucsf.edu/md-program/prospective-students/admissions-md-program/degrees-and-programs/education-programs/#MD/MPH)
- Program in Medical Education for the Urban Underserved (PRIME-US) (https://meded.ucsf.edu/md-program/prospective-students/ admissions-md-program/degrees-and-programs/educationprograms/#PRIME)
- San Joaquin Valley Program in Medical Education (SJV PRIME) (https://meded.ucsf.edu/md-program/prospective-students/ admissions-md-program/degrees-and-programs/educationprograms/#SJV-PRIME)
- MD, PhD in History of Health Sciences (https://meded.ucsf.edu/mdprogram/prospective-students/admissions-md-program/degrees-andprograms/education-programs/#history-of-health-sciences)
- · Oral and Maxillofacial Surgery Residency (p. 165)

## **Additional Information**

### Foundations 1 Leadership

meded.ucsf.edu/md-program/current-students/curriculum/bridges-faculty#Foundations-1-Leadership (https://meded.ucsf.edu/md-program/current-students/curriculum/bridges-faculty/#Foundations-1-Leadership)

### Foundations 2/Career Launch Leadership

meded.ucsf.edu/md-program/current-students/curriculum/bridges-faculty#Foundations-2Career-Launch-Leadership (https://meded.ucsf.edu/md-program/current-students/curriculum/bridges-faculty/#Foundations-2Career-Launch-Leadership)

### **Career Outcomes**

meded.ucsf.edu/md-program/current-students/student-services/ advising-career-development (https://meded.ucsf.edu/md-program/ current-students/student-services/advising-career-development/)

# **Graduation Requirements**

Course and Clinical Requirements: Bridges Curriculum

### Foundations 1 Principles

- There is one set of requirements for Foundations 1 (F1). All students will have the same required coursework and same minimum unit requirement during F1 to develop foundational science knowledge and skills.
- There is a single entry point for F, which is IDS 121A. The elements
  that comprise each course in F1 proceed in a longitudinal and
  developmental fashion, and students must complete them in order.
  Students receive a single grade for each course. In order to complete
  F1 and move on to the next phase of the curriculum, students must
  pass all eight F1 courses.
- The F1 curriculum is a full-time (minimum 40 hours per week) endeavor.

#### **Foundations 1 Requirements by Course**

Course	Title	Units
Year 1		
INTERDEPT 121A	Foundations 1 (Ground School; Clinical Microsystems Clerkship; Core Inquiry Curriculum; Physician Identity (PI) Week 1)	9
INTERDEPT 121B	Foundations 1 (Airways, Blood, and Circulation; Health and the Individual; Clinical Microsystems Clerkship; Core Inquiry Curriculum; PI Week 2)	20
INTERDEPT 123A	Inquiry Immersion 1 (Inquiry Immersion)	3
INTERDEPT 121C	Foundations 1 (Renal, Endocrine, GI, and Nutrition; Health and Society; Clinical Microsystems Clerkship, Core Inquiry Curriculum)	18
INTERDEPT 121D	Foundations 1 (Pathogens and Host Defense; Clinical Microsystems Clerkship; Core Inquiry Curriculum; PI Week 3)	12
	Units	62
Year 2		
INTERDEPT 122A	Foundations 1 (Life Stages; Clinical Microsystems Clerkship; Core Inquiry Curriculum)	11
INTERDEPT 122B	Foundations 1 (Brain, Mind, and Behavior; Clinical Microsystems Clerkship; Core Inquiry Curriculum; ARCH Week 4)	12
INTERDEPT 122C	Foundations 1 (Diagnostic Reasoning; Clinical Microsystems Clerkship; Core Inquiry Curriculum)	4
	Units	27
	Total Units	89

# Foundations 2 Principles

- There is one set of requirements for Foundations 2 (F2). All students will have the same required coursework and same minimum unit requirement in F2 to advance their clinical and foundational science knowledge and skills.
- The primary entry point into F2 is at the beginning of block 1. A second entry point at the beginning of block 3 has been created to support students in special programs on a case-by-case basis.
   Students are also permitted to enter F2 at the start of block 5 with approval based on their educational needs. Students will not be allowed to enter clerkships at any other time points during F2 without explicit approval from the Associate Dean of Curriculum.
- All students will have one day/week away from assigned block clerkships and CIExes; the longitudinal FCM clerkship and FCM Seminar/ADT and FS seminar will be scheduled during those days.
   All block clerkship students will have flexibility to schedule CIExes and vacation during otherwise unassigned time occurring in their Surgery/Anesthesia Thematic Clinical Block (TCB) and Pediatrics/ OBGYN TCB. CIExes will be scheduled in 2-week blocks. Vacation will be scheduled in 2-week blocks.
- Credit-bearing activity for block rotations (ARCH/PI Weeks and block clerkships, CIExes) is a full-time (minimum 40 hours per week) endeavor. Credit for weekly activities (longitudinal FCM, FCM Seminar/ADT/FS-in-F2 Day) is awarded by achieving expectations for required number of sessions with a minimum requirement of 22 sessions exclusive of scheduled vacation and University holidays.
- · Full enrollment in a quarter is 12 units.
- All students must take Step 1 of the US Medical Licensing
   Examination (USMLE) by the completion of the USMLE Step 1
   Licensing Exam block and before beginning Career Launch unless
   they have an exceptional curriculum approval in place.Learn more
   about the School's policy on USMLE Board Exams During Medical
   School (https://meded.ucsf.edu/policies-procedures/usmle-board exams-during-medical-school/). The UCSF School of Medicine requires
   students to pass two USMLE exams (Step 1 and Step 2 CK) in order to
   graduate.

### Foundations 2 Requirements in Weeks

Foundations 2 Requirem		
Activity	Number of Weeks/ Sessions	Number of Units
8 Core Clerkships:	MED 110 = 8 weeks	12
<ul> <li>7 Clerkships block format</li> </ul>	SURG 110 = 8 weeks	12
• 1 Clerkship longitudinally	PEDS 110 = 6 weeks	9
	OBGYN 110 = 6 weeks	9
	NEURO 110 = 4 weeks	6
	PSYCH 110 = 4 weeks	6
	ANES 110 = 2 weeks	3
	FCM 110 = 22 full-day sessions <sup>1</sup> and FCM Seminar on FS-in-F2 Day	2 units (winter, spring, summer qtr.) 3 units (fall qtr.)
FCM Seminar/ADT/FS- in-F2 Day (1 full day every-other week)	22 sessions <sup>1</sup>	1.5/qtr.
ARCH/PI Weeks	2 weeks	3

Clinical Immersion Experiences (CIExes)	6 weeks	9
Flex Time (may be used as vacation or for additional CIEx)	2 weeks	
Vacation	2 weeks	
Total	50 weeks	

Students do not attend FCM 110 seminar or FS-in-F2 during scheduled vacation or on University holidays.

### Career Launch Principles

- There are 2 sets of requirements; one set is applicable to students who have NOT done scholarly work sufficient to satisfy the Inquiry Deep Explore requirement since matriculating at medical school and the other set is applicable to those who HAVE done this scholarly work since matriculating at medical school. Examples of scholarly work sufficient to satisfy the Inquiry Deep Explore requirement include the MSTP biomedical or medical anthropology PhD; the JMP Master of Science; an MPH at UCB or another institution.
- All students will have the same required coursework and same minimum unit requirement in Career Launch to advance their clinical skills.
- All students will have flexibility in the form of unscheduled time to accomplish other goals such as residency interviews and vacation, etc.
- Students have the option of enrolling during "Unscheduled" time to engage in credit-bearing activities such as intramural or extramural clinical rotations, research, teaching, or other 4th-year electives.
- Students with an excess of unscheduled time (>10wks) have a
  possibility of taking a Winter Quarter off, provided that all graduation
  requirements can be met easily within the other quarters of Career
  Launch.
- Students will schedule activities in 2- or 4-week blocks. Each credit-bearing activity is a full-time (minimum 40 hours per week) endeavor. That is, students can take only one course at a time, with the exception of the longitudinal SPAN and some MD/MAS program graduate courses.
- · Full enrollment in a quarter is 12 units.
- Students are required to take and pass the Clinical Performance Exam (CPX) (https://meded.ucsf.edu/clinical-performance-exam-cpx/) prior to graduation.
- Students are encouraged to take Step 2 CK of the US Medical Licensing Examination (USMLE) as soon as possible after completing Foundations 2 and advised to take it by Aug 15 of the year they are applying for residency. Learn more about the School's policy on USMLE Board Exams During Medical School (https://meded.ucsf.edu/policies-procedures/usmle-board-exams-during-medical-school/). The UCSF School of Medicine requires students to pass two USMLE exams (Step 1 and Step 2 CK) in order to graduate.

### **Career Launch Requirements in Weeks**

Activity	No Prior Scholarly Work	Prior Scholarly Work
Introduction to Career	4 weeks	4 weeks
Launch		
Designing and	4 weeks	0
Conducting Research		

Clinical Requirements/ Rotations	24 weeks	24 weeks
Inquiry Deep Explore <sup>1</sup>	20 weeks	0
ARCH/PI Weeks	2 weeks	1-2 weeks <sup>2</sup>
Coda	3 weeks	3 weeks
Unscheduled	8 weeks	32-33 weeks <sup>2</sup>
TOTAL	61 weeks	61 weeks
SPAN	12 1/2 day sessions	12 1/2 day sessions

- Minimum of 12 weeks within Inquiry Deep Explore must be for scholarly Inquiry Deep Explore project work. The additional 8 weeks can be used for clinical work, scholarly Inquiry Deep Explore project work, or other credit-bearing work such as teaching.
- Students who start Career Launch late will convert the first scheduled ARCH week to unscheduled time.

#### **Career Launch Clinical Requirements/Rotation Categories**

**Advanced Core Skills:** Meeting UCSF Milestones and entering ACGME specialty zero milestones (if applicable) while student is functioning as a primary caretaker in an intern role. *12 weeks total* 

- Advanced Medicine (Med 140.01/FCM 140.40) 4-week rotation; required of all students
- · Acute/Urgent Care. 4-week rotation
- · Advanced Specialty & Sub-Specialty. 4 weeks total

Elective Skills: 12 weeks total

### **Career Exploration**

Notes:

- Students who complete non-clinical work may apply a maximum of 6 units (4 weeks) worth of credit to their 12 weeks Elective Skills graduation requirement. Additional credits earned will be reflected on the transcript, but will not count towards meeting graduation requirements.
- MSTP Students who take 2 MED 160.04s will meet a single CIEx Foundations 2 requirement OR one 2-week Electives Skills Career Launch requirement. MSTP Students who take a 3rd MED 160.04 and MED 170.36 will meet a second CIEx Foundations 2 requirement OR one 4-week Elective Skills Career Launch requirement.
- Medicine acting internship (MED 140.01) must be taken at a site
  other than where the student took the Medicine Core Clerkship (MED
  110). Occasionally a student may be assigned to the same site
  twice for their Medicine rotations due to availability issues; this is an
  unusual event that will be managed on a case-by-case basis.
- Graduation requirements specific to each graduating class are posted in iROCKET (http://irocket.ucsf.edu/).

For more details, please consult the full text of Section III of the Regulations of the Faculty of the School of Medicine, UCSF at senate.ucsf.edu/0-bylaws/somb.html#somreg (http://senate.ucsf.edu/0-bylaws/somb.html#somreg).

### **Competency Requirements: Pre-Bridges Students**

Upon graduation, students are required to have demonstrated competence in all of the MD Program Objectives. (https://meded.ucsf.edu/md-program/current-students/curriculum/md-program-objectives/) For each competency, a set of milestones defines

the expected progress throughout medical school toward achieving competence.

Code	Title	Units
INTERDEPT 121A	Foundations 1	9
INTERDEPT 121B	Foundations 1	20
INTERDEPT 121C	Foundations 1	18
INTERDEPT 121D	Foundations 1	12
INTERDEPT 122A	Foundations 1	11
INTERDEPT 122B	Foundations 1	12
INTERDEPT 122C	Foundations 1	4
INTERDEPT 123A	Inquiry Immersion 1	3
ANE PERIOP 110	Anesthesia Core Clerkship	3
FAM CM MED 110	FCM Core Clerkship	2.5
INTERDEPT 113A	Foundational Sciences in Foundations 2 (Winter)	1.5
INTERDEPT 113B	Foundational Sciences in Foundations 2 (Spring)	1.5
INTERDEPT 113C	Foundational Sciences in Foundations 2 (Summer)	1.5
INTERDEPT 113D	Foundational Sciences in Foundations 2 (Fall)	1.5
INTERDEPT 117A	Physician Identity (PI) Week 5	1.5
INTERDEPT 117B	ARCH Week 6	1.5
MEDICINE 110	Medicine Core Clerkship	12
NEUROLOGY 110	Neurology Core Clerkship	6
OB GYN R S 110	Ob/Gyn Core Clerkship	9
PEDIATRICS 110	Pediatric Core Clerkship	9
PSYCHIATRY 110	Psychiatry Core Clerkship	6
SURGERY 110	Surgery Core Clerkship	12
FAM CM MED 140.40	Advanced Inpatient Clerkship	6
INTERDEPT 117C	ARCH Week 7	1.5
INTERDEPT 117D	ARCH Week 8	1.5
INTERDEPT 118	Deep Explore	1-16
INTERDEPT 119	Introduction to Career Launch	3
INTERDEPT 120	Designing and Conducting Research	2
INTERDEPT 125	Specialty Practice Ambulatory Sub- interNship (SPAN)	3
MEDICINE 140.01	Acting Internship in Medicine	6
MEDICINE 140.01	Acting Internship in Medicine	6
MEDICINE 140.01	Acting Internship in Medicine	6
INTERDEPT 115	Coda	3

# **Doctor of Pharmacy (PharmD)**

Visit program website. (https://pharmd.ucsf.edu/about/)

Degree Offered: Doctor of Pharmacy

Program Leadership:

Conan MacDougall, PharmD, MAS, Co-Vice Dean

Igor Mitrovic, MD, Co-Vice Dean

**Admissions Inquiries:** 

Joel W. Gonzales. Director of Admissions

# **Program Description**

The UCSF PharmD degree program prepares graduates to be academically and professionally ready for careers in pharmacy practice as caring, patient-centered experts in the safe and effective use of medicines.

# **Admission Requirements**

- · Minimum GPA of 2.8
- · Minimum completion of 88 quarter units or 59 semester units
- For specific course requirements please see pharmd.ucsf.edu/ admissions/reqs (https://pharmd.ucsf.edu/admissions/reqs/)

# **Learning Outcomes**

### **CAPE 2013 Educational Outcomes**

### **Domain 1 - Foundational Knowledge**

1.1. Learner (Learner): Develop, integrate, and apply knowledge from the foundational sciences (i.e., *pharmaceutical, social / behavioral / administrative,* and *clinical sciences*) to evaluate the scientific literature, explain drug action, solve therapeutic problems, and advance population health and *patient-centered care*.

### Domain 2 - Essentials for Practice and Care

- **2.1. Patient-centered care (Caregiver):** Provide *patient-centered care* as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities).
- **2.2.** Medication use systems management (Manager): Manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems.
- **2.3.** Health and wellness (Promoter): Design prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness.
- **2.4.** Population-based care (Provider): Describe how population-based care influences patient-centered care and influences the development of practice guidelines and evidence-based best practices.

#### **Domain 3 - Approach to Practice and Care**

- **3.1. Problem solving (Problem Solver):** Identify problems; explore and prioritize potential strategies; and design, implement, and evaluate a viable solution.
- **3.2. Educator (Educator):** Educate all audiences by determining the most effective and enduring ways to impart information and assess understanding.
- **3.3. Patient advocacy (Advocate):** Assure that patients' best interests are represented.

- **3.4. Interprofessional collaboration (Collaborator):** Actively participate and engage as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs.
- **3.5.** Cultural sensitivity (Includer): Recognize *social determinants of health* to diminish disparities and inequities in access to quality care.
- **3.6. Communication (Communicator):** Effectively communicate verbally and nonverbally when interacting with an individual, group, or organization.

#### **Domain 4 - Personal and Professional Development**

- **4.1. Self-awareness (Self-aware):** Examine and reflect on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth.
- **4.2. Leadership (Leader):** Demonstrate responsibility for creating and achieving shared goals, regardless of position.
- **4.3.** Innovation and entrepreneurship (Innovator): Engage in innovative activities by using creative thinking to envision better ways of accomplishing professional goals.
- **4.4. Professionalism (Professional):** Exhibit behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society.

### **UCSF Interprofessional Educational Outcomes 2015**

The goal of IPE at UCSF is rooted in a set of common graduation milestones, which have been adopted by every professional school and program. By graduation, every health professions learner will be able to:

- **IPE-1.** Use the knowledge of one's own role and the roles of other health professionals to appropriately assess and address the health care needs of the patients and populations served.
- **IPE-2**. Communicate with other health professionals in a responsive and responsible manner that supports a collaborative approach to the maintenance of health and the treatment of disease in individual patients and populations.
- **IPE-3**. Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust.

pharmd.ucsf.edu/curriculum/outcomes (https://pharmd.ucsf.edu/curriculum/outcomes/)

# **Additional Information**

#### **Career Outcomes**

https://pharmd.ucsf.edu/about/grad-rate-performance (https://pharmd.ucsf.edu/about/grad-rate-performance/)

## **Degree Requirements**

To graduate, candidates for the Doctor of Pharmacy degree must:

- a. Complete all required didactic and experiential coursework with a passing grade as established by policies of the Curriculum and Educational Policy Committee.
- Complete all required didactic and experiential Interprofessional coursework with a passing grade as established by policies of the Interprofessional Education Classroom Committee.
- Meet or exceed all graduation requirements as judged by the Subcommittee on Student Progress.

- d. Be recommended for the degree to the Faculty Council.
- e. Show evidence of possessing satisfactory professional qualifications.
- f. Register and complete no fewer than 12 quarters.
- g. Pay all fees and financial obligations to the University.
- Fulfill the general regulations (https:// senate.universityofcalifornia.edu/bylaws-regulations/regulations/ rpart3.html) for granting degrees of the University of California.
- Complete the requirements of the Doctor of Pharmacy degree within 4 years of the date he/she/they entered as a first-year student, excluding approved leaves of absence.
- j. Complete all required didactic and experiential Interprofessional coursework with a passing grade as established by policies of the Program for Interprofessional Practice and Education: PIPE (https://interprofessional.ucsf.edu/)

Unite

URL: pharm.ucsf.edu/current/academics/requirements (https://pharm.ucsf.edu/current/academics/requirements/)

Title

Course	Title	Units
Year 1		
Summer		
PHARMIS 110	Foundations I	14.5
CL PHARM 170	Applied Patient Care Skills I	2.5
	Units	17
Fall Quarter		
PHARMIS 111	Cardiovascular Science & Therapeutics	11.5
CL PHARM 171	Applied Patient Care Skills II	1
CL PHARM 181	Introductory Pharmacy Practice Experience- Community A	2.5
	Units	15
Winter Quarter		
PHARMIS 112	Respiratory Science & Therapeutics	9.5
CL PHARM 172	Applied Patient Care Skills III	1
CL PHARM 182	Introductory Pharmacy Practice Experience - Community B	2.5-5
INTERDEPT 123A	Inquiry Immersion 1	3
	Units	16-18.5
Spring Quarter		
PHARMIS 113	Renal Science and Therapeutics	6
PHARMIS 114	Gastrointestinal Science and Therapeutics	8
CL PHARM 173	Applied Patient Care Skills IV	1
CL PHARM 182	Introductory Pharmacy Practice Experience - Community B	2.5-5
	Units	17.5-20
Year 2		
Summer		
PHARMIS 115	Foundations II	3
PHARMIS 116	Endocrine Science and Therapeutics	9.5
CL PHARM 174	Applied Patient Care Skills V	1
CL PHARM 183	Introductory Pharmacy Practice Experience - Health Systems	1.5-3.5
	Units	15-17
Fall Quarter		
PHARMIS 117	Neuroscience and Therapeutics	14.5
CL PHARM 175	Applied Patient Care Skills VI	1
CL PHARM 183	Introductory Pharmacy Practice Experience - Health Systems	1.5-3.5
	Units	17-19

Winter Quarter		
PHARMIS 118	Oncology Science and Therapeutics	5.5
PHARMIS 119	Infectious Disease Science and Therapeutics	8
CL PHARM 176	Applied Patient Care Skills VII	1
CL PHARM 182	Introductory Pharmacy Practice Experience - Community B	2.5-5
	Units	17-19.5
Spring Quarter	D	-
PHARMIS 120A	Discovery Groups Research Block	5
PHARMIS 120B CL PHARM 183	Intensive Discovery Research Project	1.5-3.5
	Introductory Pharmacy Practice Experience - Health Systems	
Select one of the following:	U ': IBI	7
CL PHARM 192	Hospital Pharmacy Systems & Practice APPE	
CL PHARM 193	Community Pharmacy Systems & Practice APPE	
CL PHARM 194	Acute Patient Care APPE	
CL PHARM 195	Ambulatory Patient Care APPE	
CL PHARM 190	Non-Direct Patient Care APPE Elective	
CL PHARM 191	Direct Patient Care APPE Elective	
	Units	25.5-27.5
Year 3		
Summer		_
CL PHARM 192	Hospital Pharmacy Systems & Practice APPE	7
CL PHARM 193	Community Pharmacy Systems & Practice APPE	7
CL PHARM 194	Acute Patient Care APPE	7
CL PHARM 195	Ambulatory Patient Care APPE	7
CL PHARM 190	Non-Direct Patient Care APPE Elective	7
CL PHARM 191	Direct Patient Care APPE Elective	7
PHARMIS 121	Discovery Project Final Analysis and Completion	2
	Units	44
Fall Quarter		_
CL PHARM 192	Hospital Pharmacy Systems & Practice APPE	7
CL PHARM 193 CL PHARM 194	Community Pharmacy Systems & Practice APPE  Acute Patient Care APPE	7
CL PHARM 195		7
CL PHARM 190	Ambulatory Patient Care APPE  Non-Direct Patient Care APPE Elective	7
CL PHARM 191	Direct Patient Care APPE Elective	7
PHARMIS 121	Discovery Project Final Analysis and Completion	2
PHANIVIIS 121	Units	44
Winter Quarter	Onits	44
CL PHARM 192	Hospital Pharmacy Systems & Practice APPE	7
CL PHARM 193	Community Pharmacy Systems & Practice APPE	7
CL PHARM 194	Acute Patient Care APPE	7
CL PHARM 195	Ambulatory Patient Care APPE	7
CL PHARM 190	Non-Direct Patient Care APPE Elective	7
CL PHARM 191	Direct Patient Care APPE Elective	7
PHARMIS 121	Discovery Project Final Analysis and Completion	2
THAIIWII TZI	Units	44
Spring Quarter	Onits	44
CL PHARM 192	Hospital Pharmacy Systems & Practice APPE	7
CL PHARM 193	Community Pharmacy Systems & Practice APPE	7
CL PHARM 194	Acute Patient Care APPE	7
CL PHARM 195	Ambulatory Patient Care APPE	7
CL PHARM 190	Non-Direct Patient Care APPE Elective	7
CL PHARM 191	Direct Patient Care APPE Elective	7
PHARMIS 121	Discovery Project Final Analysis and Completion	2
	Units	44
	Total Units	316-329.5

# **Doctor of Physical Therapy (DPT)**

Visit program website. (https://ptrehab.ucsf.edu/ucsfsfsu-graduate-program-physical-therapy-dpt/)

Degree Offered: Doctor of Physical Therapy

Program Leadership:

Amber Fitzsimmons, PT, MS, DPTSc Associate Professor and Chair, UCSF

Jeannette Q. Lee, PT, PhD, CLT, CSCS Associate Professor and Chair, SFSU

Theresa Jaramillo, PT, MS, DPT Vice Chair of Academic Programs, UCSF DPT Associate Program Director, UCSF

#### **Admissions Inquiries:**

Mike Tressel, Admissions and Recruitment Specialist

# **Program Description**

The entry-level Doctor of Physical Therapy (DPT) degree is a three-year joint program between University of California, San Francisco (UCSF) and San Francisco State University (SFSU). Physical therapy is a dynamic profession with an established theoretical and scientific base and widespread clinical applications in the restoration, maintenance, and promotion of optimal physical function. The UCSF/SFSU program runs for 36 continuous months beginning in June and includes 34 weeks of full-time clinical experiences. The program is designed to prepare scholarly clinicians, educators, collaborative clinical researchers, administrative managers and community leaders.

The curriculum of the DPT program is built on a strong theoretical foundation in basic, medical and applied sciences. Critical thinking and clinical reasoning skills are developed within an integrated program that prepares students to work collaboratively with patients across the lifespan to improve health and wellness, address disability challenges, and optimize function.

### **Faculty**

The UCSF/SFSU faculty includes leaders in the field, renowned researchers, and exemplary teachers. Many of the core faculty are currently practicing clinicians at a range of sites, including several UCSF Outpatient Faculty Practices, UCSF Health & Wellness Center, UCSF Medical Center, and SFSU Student Health Center.

#### **Career Outcomes**

Graduates from the entry-level DPT program go on to work as physical therapy professionals who are committed to patient care, education, and the application of research to clinical practice.

# **Admission Requirements Applications**

Completion of two applications:

- a. Physical Therapist Centralized Application Service (PTCAS) (https://ptcas.liaisoncas.com/applicant-ux/#/login)
- b. UCSF Supplemental Application (link is provided after applicant has submitted PTCAS application)

### **Clinical Experience**

All applicants must be able to demonstrate understanding of the physical therapy profession by completing a minimum of 50 clinical observation hours (paid or volunteer) under the direct supervision of a licensed physical therapist. These hours can be completed in one or more physical therapy settings (e.g., outpatient, inpatient, rehab).

#### Letters of Recommendation

Letters of recommendation are required from three individuals who personally know the applicant and their abilities. At least one letter must be from a licensed physical therapist. Instructors of basic science coursework, health professionals, or employers are suggested for the other two.

### **Required Prerequisite Coursework**

- · General Chemistry with lab (1 year)
- · General Physics with lab (1 year)
- · Human or Comparative Anatomy with lab (1 semester)
- Human Physiology with lab (1 semester)
- · General Biology with lab (1 year)
- · Abnormal Psychology (1 semester)
- Introduction to Statistics (1 semester)

### **Additional Criteria**

As a part of our holistic admissions review process, we consider an applicant's experiences, both in the academic environment and beyond it. We review each applicant's responses to our essay prompts, as well as extra-curricular involvement during an applicant's collegiate career. That can include, for example, intercollegiate athletics participation, work experience, research experience, or leadership roles in organizations. A successful application does not require those life experiences, but they are additional factors that can strengthen an application beyond the academics and observation hours.

### **Transcripts and Degree**

All applicants must hold a bachelor's degree from a regionally accredited institution. Official transcripts from every college and university attended must be sent directly to PTCAS. Applicants who completed coursework at an international institution must submit a Foreign Transcript Evaluation Report directly to PTCAS. For Canadian courses, submit the original transcript directly to PTCAS if the transcript is in English. International applicants whose primary language is not English must also provide evidence of English language proficiency. Additional information may be found on our Application Requirements webpage (https://ptrehab.ucsf.edu/dpt-application-requirements/).

# **Learning Outcomes**

### Student Goals

- a. Students will provide patient-centered care and participate in outreach and service to the community, striving to improve access, equity, and quality of treatment and education, with emphasis on communities of need
- b. Students will develop their professionalism, clinical skills, and unique
- c. Students will develop an appreciation for and engage in research
- d. Students will benefit from the diversity valued by the program and will experience an inclusive learning environment

e. Students will be advocates for the Physical Therapy Profession and leaders in their communities

### **Additional Information**

The DPT program is offered by the UCSF Graduate Division, administered by the UCSF School of Medicine, and delivered by faculty members in the UCSF School of Medicine and at San Francisco State University. The program office is located at the UCSF Mission Bay campus. Visit the program website (https://ptrehab.ucsf.edu/ucsfsfsu-graduate-program-physical-therapy-dpt/) for more information.

### **Program Faculty**

• Find a program faculty list (https://ptrehab.ucsf.edu/content/dpt-program-course-directors/) on the program website.

# **Degree Requirements**

The requirements for successful completion of the program are based on academic and professional expectations. Each student will be evaluated in terms of academic achievement, clinical abilities, and professional behaviors (self-assessment, faculty assessment and clinical instructor assessment). Requirements for graduation include:

- Successful completion of all academic coursework with 3.0 GPA at both Universities and combined
- · Passing grades on all practical and competency exams
- · Passing grades on all qualifying assessment exams
- · Passing grades on all clinical education experiences
- Successful completion of an evidence-based practice manuscript and presentation to the public.
- · Demonstration of professional behaviors

### **Core Courses**

All courses are taken at UCSF unless otherwise noted.

Note: Previous SFSU Course Bulletins can be found in their course bulletin archive (http://bulletin.sfsu.edu/past-bulletin-archive/).

Course	Title	Units
Year 1		
Summer		
PHYS THER 200A	Neuromusculoskeletal Anatomy I	4
PHYS THER 201	Physical Therapy Assessment: Principles and Practice	3
PT 706 (SFSU)	Structure, Function, and Motion in Physical Therapy <sup>1</sup>	3
	Units	10
Fall		
PHYS THER 112A	Motor Control Across the Lifespan: Motor Behavior	1.5
PHYS THER 204A	Pathophysiology for Physical Therapists I	3
PHYS THER 200B	Neuromusculoskeletal Anatomy II	0.5
PHYS THER 202	Therapeutic Modalities	1.5
PHYS THER 215A	Compassion, Accountability, Responsibility, & Excellence I	0.5
PHYS THER 410	Integrated Clinical Experience	1
PT 741 (SFSU)	Musculoskeletal Pathokinesiology I <sup>1</sup>	6
	Units	14
Winter		
PHYS THER 204B	Pathophysiology for Physical Therapists II	3
PHYS THER 110	Ortho & Rehab Diag/Treatment	2
PHYS THER 200C	Neuromusculoskeletal Anatomy III	0.5
	Units	5.5

Spring		
PHYS THER 215B	Compassion, Accountability, Responsibility, &	0.5
PHYS THER 218A	Excellence II  Therapeutic Exercise: Beginning Exercise	1.5
PHYS THER 400A	Prescription  Grand Rounds (Longitudinal course, also taken in fall	1
FIII'S ITILIT 400A	and winter for 0 units.)	
PT 700 (SFSU)	Multisystem Pathokinesiology <sup>1</sup>	6
PT 742 (SFSU)	Musculoskeletal Pathokinesiology II	6
PHYS THER 219A	Pain Science for the Physical Therapist I	1
	Units	16
Year 2 Summer		
ANATOMY 207	Neuroscience	3
PT 801 (SFSU)	First Full-Time Clinical Education Experience I <sup>1</sup>	9
PHYS THER 251A	Research Design I: Introduction to Scientific Inquiry	3
PHYS THER 219B	Pain Science for the Physical Therapist II	1
PHYS THER 218B	Therapeutic Exercise: Intermediate Exercise	1.5
	Prescription	
	Units	17.5
Fall		
PHYS THER 111	Neurology & Rehab Diagnosis and Treatment	2.5-3
PHYS THER 211	Pharmacology for Physical Therapists	2
PHYS THER 216A	Compassion, Accountability, Responsibility, & Excellence III	0.5
PHYS THER 251B	Research Design II: Appraisal of Scientific Literature	1
PT 710 (SFSU)	Neurological Pathokinesiology I 1	6
PT 735 (SFSU)	Psychosocial Issues in Rehabilitation Sciences, Part $\operatorname{I}^1$	3
PT 743 (SFSU)	Musculoskeletal Pathokinesiology III <sup>1</sup>	4.5
	Units	19.5-20
Winter		
PT 802 (SFSU)	Intermediate Full-Time Clinical Education Experience II $^{\rm 1}$	9
	Intermediate Full-Time Clinical Education Experience II <sup>1</sup> Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)	9
PT 802 (SFSU)	II <sup>1</sup> Grand Rounds (Longitudinal course, also taken in fall	
PT 802 (SFSU)	II <sup>1</sup> Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)	1
PT 802 (SFSU) PHYS THER 400B	II <sup>1</sup> Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)	1
PT 802 (SFSU) PHYS THER 400B Spring	II <sup>1</sup> Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units	10
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists	1 10 1.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review	1 10 1.5 2
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, &	1 10 1.5 2 2
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV	10 1.5 2 2 0.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B PHYS THER 419A	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in	10 1.5 2 2 0.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU)	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part	10 1.5 2 2 0.5 0.5 4.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU)	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1	10 1.5 2 2 0.5 0.5 4.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU) PT 737 (SFSU)	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1	10 1.5 2 2 0.5 0.5 4.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU) PT 737 (SFSU)  Year 3	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1	10 1.5 2 2 0.5 0.5 4.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU) PT 737 (SFSU)  Year 3 Summer	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.) Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1 Units  Evidence-Based Practice I: Intro to a Systematic	1 10 1.5 2 2 0.5 0.5 4.5 1.5 12.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU) PT 737 (SFSU)  Year 3 Summer PHYS THER 209A	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)  Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1  Units  Evidence-Based Practice I: Intro to a Systematic Review	1 10 1.5 2 2 0.5 0.5 4.5 1.5 12.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU) PT 737 (SFSU)  Year 3 Summer PHYS THER 209A PHYS THER 213	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)  Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1  Units  Evidence-Based Practice I: Intro to a Systematic Review Neurological Pathokinesiology II	1 10 1.5 2 2 0.5 0.5 4.5 1.5 12.5 2 2
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 419A PT 736 (SFSU) PT 737 (SFSU)  Year 3 Summer PHYS THER 209A  PHYS THER 213 PT 908 (SFSU)	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)  Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part III Units  Evidence-Based Practice I: Intro to a Systematic Review Neurological Pathokinesiology II Professional Colloquium 1	1 10 1.5 2 2 0.5 0.5 4.5 1.5 12.5 2 2 1.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 216B  PHYS THER 419A PT 736 (SFSU)  PT 737 (SFSU)  Year 3  Summer PHYS THER 209A  PHYS THER 213 PT 908 (SFSU) PHYS THER 214	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)  Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1  Units  Evidence-Based Practice I: Intro to a Systematic Review Neurological Pathokinesiology II Professional Colloquium 1 Administration and Organization in Physical Therapy	1 10 1.5 2 2 2 0.5 4.5 1.5 12.5 2 2 1.5 3
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 216B  PHYS THER 419A PT 736 (SFSU)  PT 737 (SFSU)  Year 3  Summer PHYS THER 209A  PHYS THER 213 PT 908 (SFSU) PHYS THER 214 PHYS THER 214 PHYS THER 419B	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)  Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1  Units  Evidence-Based Practice I: Intro to a Systematic Review Neurological Pathokinesiology II Professional Colloquium 1 Administration and Organization in Physical Therapy Research Seminar II Education, Health Promotion, Wellness, and	1 10 1.5 2 2 2 0.5 4.5 1.5 12.5 2 2 1.5 3 0.5
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 216B  PHYS THER 419A PT 736 (SFSU)  PT 737 (SFSU)  Year 3  Summer PHYS THER 209A  PHYS THER 213 PT 908 (SFSU) PHYS THER 214 PHYS THER 214 PHYS THER 419B	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)  Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1  Units  Evidence-Based Practice I: Intro to a Systematic Review Neurological Pathokinesiology II Professional Colloquium 1 Administration and Organization in Physical Therapy Research Seminar II Education, Health Promotion, Wellness, and Prevention in Physical Therapy 1	1 10 1.5 2 2 2 0.5 4.5 1.5 12.5 2 2 1.5 3 0.5 3
PT 802 (SFSU) PHYS THER 400B  Spring PHYS THER 112B PHYS THER 205 PHYS THER 210 PHYS THER 216B  PHYS THER 216B  PHYS THER 419A PT 736 (SFSU)  PT 737 (SFSU)  Year 3  Summer PHYS THER 209A  PHYS THER 213 PT 908 (SFSU) PHYS THER 214 PHYS THER 214 PHYS THER 419B PT 704 (SFSU)	II 1 Grand Rounds (Longitudinal course, also taken in fall and spring for 0 units.)  Units  Motor Control Across the Lifespan: Pediatrics Functional Anatomy Review Radiology for Physical Therapists Compassion, Accountability, Responsibility, & Excellence IV Research Seminar I Ecological and Organizational Issues in Rehabilitation 1 Psychosocial Issues in Rehabilitation Science, Part II 1  Units  Evidence-Based Practice I: Intro to a Systematic Review Neurological Pathokinesiology II Professional Colloquium 1 Administration and Organization in Physical Therapy Research Seminar II Education, Health Promotion, Wellness, and Prevention in Physical Therapy 1	1 10 1.5 2 2 2 0.5 4.5 1.5 12.5 2 2 1.5 3 0.5 3

	Total Units	154.5-155
	Units	17
PHYS THER 418	Terminal Clinical Experience	16
PHYS THER 400C	Grand Rounds (Longitudinal course, also taken in fall and winter for 0 units.)	l 1
Spring	Units	13
PHYS THER 112C	Motor Control Across the Lifespan: Geriatrics	1.5
PT 910 (SFSU)	Evidence Based Practice <sup>1</sup>	6
PHYS THER 218D	Therapeutic Exercise: Exercise for Special Populations	1.5
PHYS THER 207	Medical Screening for Physical Therapists	4
Winter		
	Units	7.5
PT 711 (SFSU)	Neurological Pathokinesiology III <sup>1</sup>	4.5
PHYS THER 419C	Research Seminar III	0.5
PHYS THER 218C	Therapeutic Exercise: Advanced Prescription & Manual Therapy	1.5

<sup>1</sup> http://bulletin.sfsu.edu/courses/pt/

# **Epidemiology and Translational Science (PhD)**

Visit program website. (https://epibiostat.ucsf.edu/doctoral-program-epidemiology-translational-science/)

Degree Offered: PhD Program Leadership:

Catie Oldenburg, ScD, MPH, Program Director David Glidden, PhD, Associate Director

**Admissions Inquiries:** 

Eva Wong-Moy, Program Manager

# **Program Description**

The Epidemiology and Translational Science PhD program is a four to five year course of study for individuals wishing to pursue independent research careers. Incoming students have typically completed training at the master's level in epidemiology, public health, or related quantitative research fields prior to entering the program. Students are trained in the most advanced methods for studying disease etiology and prevention; for evaluating diagnostic tests and treatment efficacy in clinical settings; and for implementing evidence-based approaches in clinical practice and population health.

The Department of Epidemiology and Biostatistics at UCSF is the largest of its kind in the ten-campus UC system in terms of full-time primary faculty and number of affiliated faculty. Epidemiology serves as a key discipline — an "epicenter" in team science and in problem-based learning, bridging basic and population sciences. It serves translational science with a critical perspective on population health and provides instruction on research methods that move basic scientific discoveries to practical clinical applications.

### **Faculty**

The program has about 70 primary faculty members in the Department of Epidemiology and Biostatistics and an additional 60 affiliated faculty from other UCSF departments as well as from other institutions and organizations throughout the San Francisco Bay Area and the around the country. Affiliated faculty are associated with departments including general and internal medicine, cardiovascular medicine, pediatrics, psychiatry, obstetrics and gynecology, neurology, nursing, clinical pharmacy, biopharmaceutical sciences, radiology, and dentistry.

### **Areas of Concentration**

- Aging (including cardiovascular disease, musculoskeletal disease, and dementia/brain aging)
- Bioinformatics
- · Biostatistics
- · Cancer epidemiology
- · Clinical epidemiology and methods
- · Environmental and occupational epidemiology
- · Epidemiology of cardiovascular and neurological disorders
- · Genetic epidemiology
- · Global health
- · Implementation Science
- · Infectious disease epidemiology
- Lifecourse
- · Machine learning

- · Precision public health and computational epidemiology
- Reproductive, perinatal and neonatal epidemiology
- · Social epidemiology

The Epidemiology and Translational Science Program is based at UCSF's Mission Bay campus. The doctoral program is housed in the Department of Epidemiology and Biostatistics (DEB) in the School of Medicine and is a joint effort with the University's Clinical and Translational Sciences Institute (CTSI).

The Epidemiology and Translational Science program is offered by the UCSF Graduate Division, administered by the UCSF School of Medicine, and delivered by faculty members in the UCSF School of Medicine.

# **Admission Requirements**

- A prior master's degree in a field relevant to health research, such as epidemiology, public health, clinical research or a related technical field such as statistics or computer science with at least a 3.0 GPA; the following exemptions may apply:
  - Applicants with exceptional research backgrounds may be accepted without a master's degree. These students may be required, however, to complete additional coursework.
  - Applicants with terminal clinical degrees (MD, PharmD, RN, NP) but no master's will be evaluated based on their prior research experience and potential to be a leader in population health research, with the admissions committee recommending one of the following outcomes:
    - · Denial of admission
    - Deferral of decision regarding admission to the PhD program with recommendation that the applicant pursue a master's in the UCSF Training in Clinical Research (TICR) program, with reevaluation of the applicant at the conclusion of year 1 in the TICR program
    - Direct admission to the PhD program, based on the assessment that the applicant's prior work manifests experience and training on par with a research master's degree
- Graduate Record Examination (GRE): Submission of GRE scores was not required for the Fall 2023 application cycle. Check the admissions webpage (https://epibiostat.ucsf.edu/admissions/) for updates regarding future admissions cycles.

# **Learning Outcomes**

We aim to train top-tier researchers and population health leaders, prepared to pursue academic careers at highly ranked, researchintensive universities or careers within health-focused non-profit, industry, or government sectors. Our incoming students include a mix of clinicians who aim to develop expertise as clinician-scientists and non-clinicians, typically with a background in public health or epidemiology. We envision our role as both providing both theoretical frameworks to identify important health research questions and technical research skills to address these questions. The PhD program aims to prepare students to lead research on both classical epidemiologic topics, i.e., the determinants of incidence and prognosis of disease, and applied problems addressing the translation from discovery science to application, implementation, and dissemination. We view the use of epidemiologic methods and perspectives, such as rigorous quantitative analyses and multilevel determinants of health and behavior, as critical for translational science intended to move basic scientific discoveries to

practical clinical applications and dissemination of new basic and clinical knowledge to population health settings.

The program is grounded in the technical skills of epidemiology, emphasizing quantitative research methods such as study design, data science, statistical analyses, and interpretation. All students also adopt a substantive emphasis related to the topic of their dissertations and are expected to pursue deeper content area training in this domain to develop scientifically relevant research questions. These areas are generally aligned with recognized subdomains of epidemiology and intended to match faculty expertise so students can receive the highest degree of topic-related mentoring.

The following competencies are covered in the core section of the qualifying examination:

- a. Modern causal inference frameworks
- b. Study design
- c. Sampling and data sources
- d. Measurement development and validation
- e. Sources of bias and contemporary tools to remediate bias e.g., confounding, selection bias, and information bias
- f. Statistical analyses and interpretation
- g. Surveillance, outcomes, and measuring public health impact

# **Additional Information**

### **Program Core Faculty**

 Find a program faculty list (https://epibiostat.ucsf.edu/faculty/) on the program website.

### **Career Outcomes**

 Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

- Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- Pass qualifying examination
- · Completion and submission of the dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

Course	Title	Units
Year 1		
Fall		
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
EPIDEMIOL 203	Epidemiologic Methods	4
EPIDEMIOL 204	Clinical Epidemiology	3
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	11
Winter		
BIOSTAT 208	Biostatistical Methods II	3
EPIDEMIOL 207	Epidemiologic Methods II	3

EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	7
Spring		
BIOSTAT 209	Biostatistical Methods III	3
or EPIDEMIOL 268	Research Methods in Chronic Disease Epidemiology  or Econometric Methods for Causal Inference	3
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
EPIDEMIOL 297	Research Rotation in Epidemiology & Translational Science <sup>2</sup>	1-4
	Units	8-11
Summer Term First Year Diagnostic		
	Units	0
Year 2		
Fall		
BIOSTAT 210	Biostatistical Methods IV	2
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
EPIDEMIOL 296	Independent Study in Epidemiology and Translational Science <sup>3</sup>	1-4
EPIDEMIOL 297	Research Rotation in Epidemiology & Translational Science <sup>2</sup>	1-4
	Units	5-11
Winter		
BIOSTAT 211 EPIDEMIOL 270	Mathematical Foundations of Biostatistics  Doctoral Seminar in Epidemiology and Translational	1
	Science Units	3
Spring	Offics	3
BIOSTAT 215	Strengthening causal inferences based on observational data	3
EPIDEMIOL 265 or EPIDEMIOL 268	Research Methods in Chronic Disease Epidemiology	3
	or Econometric Methods for Causal Inference	
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
EPIDEMIOL 296	Independent Study in Epidemiology and Translational Science <sup>3</sup>	1-4
Summer Term	Units	8-11
Qualifying Examination, Part	1	
Qualifying Examination, 1 are	Units	0
Year 3		
Fall		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
Qualifying Examination, Part 2	2 (may continue through year 3, winter and spring)	
Winter	Units	9
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	9
Spring		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
Advancement to Candidacy		
	Units	9

Year 4		
Fall		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	9
Winter		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	9
Spring		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	9
Year 5		
Fall		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	9
Winter		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	9
Spring		
EPIDEMIOL 299D	Dissertation Research	8
EPIDEMIOL 270	Doctoral Seminar in Epidemiology and Translational Science	1
	Units	9
	Total Units	123-135

EPIDEMIOL 265 Research Methods in Chronic Disease Epidemiology (odd years) or EPIDEMIOL 268 Econometric Methods for Causal Inference (even years)

## **Approved Electives**

This list is not exhaustive. Additional courses offered in other UCSF departments, through the University of California Intercampus Exchange program at UC Berkeley, and the Stanford University-UCSF Exchange Program are routinely approved if the courses are aligned with the student's scientific goals.

Code	Title	Units	
Data Sources and Bioinformatics			
BIO MD INF 203	Biocomputing Algorithms	4	
BIO MD INF 206	Statistical Methods for Bioinformatics	4	
BIO MD INF 219	Special Topics in Bioinformatics (Computational Immunology)	3	
BIO MD INF 219	Special Topics in Bioinformatics (Deep Learning)	3	
BIO MD INF 219	Special Topics in Bioinformatics (Microbiome Research)	3	
BIO MD INF 219	Special Topics in Bioinformatics (Neurodegenerative Disease Mechanisms)	3	

BIOSTAT 212	Introduction to Statistical Computing in Clinical Research	1
BIOSTAT 213	Programming for Health Data Science in R	2
BIOSTAT 216	Machine Learning in R for the Biomedical Sciences	3
EPIDEMIOL 218	Data Collection and Management for Clinical Research	1
EPIDEMIOL 226	Informatics Tools for Health Disparities Research	2
EPIDEMIOL 231	Use of Electronic Health Records Data for Clinical Research	3
<b>Epidemiologic Methods</b>		
EPIDEMIOL 202	Designing Clinical Research (Two Month)	2
EPIDEMIOL 205	Clinical Trials	2
EPIDEMIOL 214	Systematic Reviews	1
Genetic Epidemiologic M	•	
BIO MD INF 219		2
BIO MID INF 219	Special Topics in Bioinformatics (Disparities in human genetic research and health care across people with different ancestries)	3
EPIDEMIOL 217	Molecular & Genetics Epidemiology I	2
<b>Biostatistical Methods</b>		
BIOSTAT 202	Opportunities and challenges of complex biomedical data	3
BIOSTAT 216	Machine Learning in R for the Biomedical Sciences	3
DATASCI 225	Advanced Machine Learning for the Biomedical Sciences II	3
Subject Matter-Specific I	Methods	
EPIDEMIOL 210	Epidemiology of Aging	2
EPIDEMIOL 222	Social Determinants of Health and Health Disparities	1-2
EPIDEMIOL 252A	Cancer Epidemiology	2
EPIDEMIOL 252B	Cancer Epidemiology	1
EPIDEMIOL 253	Methods in Infectious Disease Epidemiology	2-3
EPIDEMIOL 263	Demographic Methods for Health	1.5
Cost-Effectiveness Analy		
EPIDEMIOL 213	Cost-Effectiveness Analysis in Medicine and Public Health	2
Implementation Science		
EPIDEMIOL 241	Designs for Intervention Research in Real-World Settings	2
EPIDEMIOL 242	Program Evaluation in Clinical and Public Health Settings	2
EPIDEMIOL 243	Human Centered Design	2
EPIDEMIOL 245	Introduction to Implementation Science: Theory and Design	2
EPIDEMIOL 246	Designing Individual-Level Implementation Strategies	2
EPIDEMIOL 247	Designing Interventions to Change Organizational Behavior	2
EPIDEMIOL 248	Community-Engaged Research	2

Research Rotation – may be any quarter through 2nd year Teaching Assistantship - may be any quarter

EPIDEMIOL 249	Translating Evidence Into Policy	2
EPIDEMIOL 267	Qualitative and Mixed Methods Research	2
Practical/Professional Skills		
EPIDEMIOL 212	Publishing and Presenting Clinical Research	1
<b>Graduate Division</b>		
GRAD 202	Racism in Science	3
GRAD 210	Justice, Equity, Diversity and Inclusion Academic Leadership	4
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
GRAD 219A	Special topics in racism and social justice in science	3
GRAD 219B	Special topics in racism and social justice in science	3
GRAD 219C	Special topics in racism and social justice in science	3

# **Non-course Core Requirements**

- · Unit requirement: 52 units
- The First Year Diagnostic will assess mastery of year one core coursework and is taken at the end of year one.
- Research Team Rotations: Students are required to complete two
  quarters of research team rotations (4 units each), similar to the lab
  rotation requirement in other established PhD programs at UCSF
  (e.g., BMS, BMI and PSPG). Research team rotations are focused on
  either analysis (analytic rotations) or generation of data (nonanalytic
  rotations). In analytic rotations, the experience should include direct
  manipulation of data, including drafting of statistical analysis code.
  In nonanalytic rotations, the focus will be on nonanalytic aspects
  of conducting research, including design, start-up, recruitment,
  measurement (in wet lab or other setting), data management, and/or
  regulatory and financial tasks. The objective of these rotations is for
  the student to have the opportunity to:
  - · Apply concepts taught in formal classes
  - Learn practical aspects of conducting research, including how to work within a multidisciplinary team
  - Acquire exposure to areas of research other than the student's primary area
  - Launch projects with potential for developing into qualifying examination or dissertation research topic
  - · Decide on a dissertation mentor, if not already identified
- Teaching Assistantships: Students are expected to participate as a teaching assistant (TA) in two basic Training in Clinical Research courses. Students will typically serve as a TA in one Epidemiology course (i.e., EPI 150.03, 202, 203, 204, 205, 207, 211, 213, 217, 245, 265, or 268) and in one Biostatistics course (i.e., BIOSTAT 200, 208, 209, 212, or 215) over a two-year period starting in the second or third year. In most cases, students will have taken these courses in the first or second year.
- Pass two-part written qualifying examination. The "Core Content" section (part one) will assess mastery of core epidemiologic methods. The "Topical" section (part two) will establish a level of expertise related to the student's anticipated research focus.
- Dissertation and dissertation defense: three first-authored manuscripts developed with the mentorship and oversight of

the dissertation committee and approved by the committee as publishable in the peer-reviewed literature.

## **Equity in Brain Health (Certificate)**

Visit program website. (https://www.gbhi.org/about-program/)

**Degree Offered:** Certificate **Program Leadership:** 

Howie Rosen, MD, Director of Curriculum, Global Brain Health Institute

(GBHI)

Victor Valcour, MD, PhD, Site Director, GBHI Bruce L. Miller, MD, Founding Director, GBHI

**Admissions Inquiries:** 

Stacey Yamamoto, Fellowship Manager

## **Program Description**

The Certificate in Equity in Brain Health is designed to increase understanding, capacity, and commitment to brain health and wellness and to help students access the resources and networks that they need to accelerate and achieve demonstrable impact in this field. This interdisciplinary program emphasizes an innovative training and networking platform and includes content modules in: clinicals/neurosciences; social determinants of health; ethics, law and society; health economics; creativity and equity in brain health; epidemiology; public and patient voice; health policy; skills and leadership. There is also an independently-developed review of research analysis methods for students to pursue, and a variety of Summer Electives for students to select.

This 18.5-credit certification program is organized over four quarters including Fall, Winter, Spring, and Summer. The courses are taught using a flipped classroom model to promote discussion and peer learning. Lectures, case studies, team-based projects, and collaborative student-led discussions further support this dynamic, interdisciplinary learning environment.

There is also a capstone project in which students develop a grant proposal for a hypothetical project in their region of interest to resolve a significant issue related to advancing skills, knowledge, and activities to delay, prevent, and/or mitigate the impact of dementia.

## **Admission Requirements**

- Demonstrated interest in the areas of equity and brain health and a commitment to advance meaningful and impactful work.
- Preference will be given to applicants who demonstrate leadership
  potential, have robust regional support networks, and/or will have
  developed significant expertise in their field and track record of
  achievement. These support networks may include current and past
  partners, institutions, organizations, employers and groups.

## **Learning Outcomes**

The Certificate in Equity in Brain Health program features an innovative training and networking platform whose vision is reflected in three characteristics:

- 1. Interprofessional approach by bringing together a powerful mix of disciplines, backgrounds, skill sets, perspectives, and approaches to develop new solutions.
- 2. Global mindset by striving to improve brain health for populations across the world, reaching into local communities and across our global network.

3. Equity-oriented by focusing on working compassionately with people in vulnerable and underserved populations to improve outcomes and promote dignity for all people.

## **Degree Requirements**

- Attend and participate in all scheduled class sessions, seminars and study groups.
- Successfully complete all assignments, quizzes, projects, writing requirements and presentations (both individual and panel presentations).
- Deliver an individual Works-in-Progress in relation to a research proposal.
- d. Complete and submit a pilot proposal a final, cumulative project that merges knowledge gained with a regional project of interest.
- e. Enroll in and pass the 18.5 units of this certificate program.
- Recognize that the minimum in-progress grade for successful completion is 3.0.

### **Core Courses**

	Total Units	18.5
	Units	3
EQBRAIHLTH 250.2	Independent Study - Project Development II	0.5
EQBRAIHLTH 240	Selected Topics	2.5
Summer Term		
	Units	3.5
EQBRAIHLTH 250.1	Independent Study - Project Development I	1
EQBRAIHLTH 220	Brain Health Policy	2.5
Spring		
	Units	5
EQDITATILETTI 200.2	Communication II	
EOBRAIHLTH 230.2	Professional Development for Leadership and	1
EOBRAIHLTH 211	Brain Wellness and Modifiable Risk Factors	2
Winter EOBRAIHLTH 210	Atypical Dementias	2
	Units	7
	Communication I	
EOBRAIHLTH 230.1	Professional Development for Leadership and	2
EQBRAIHLTH 202	Alzheimer's Disease	2
EQBRAIHLTH 201	Introduction to Dementia and Health Care	3
Fall		
Course	Title	Units

## **Genetic Counseling (MS)**

Visit program website. (https://geneticcounseling.ucsf.edu/)

Degree Offered: MS Program Leadership:

Cynthia Morgan, MS, CGC, Program Director Allyson Scott, MS, CGC, Associate Director Julie Harris-Wai, PhD, MPH, Research Director Jason Carmichael, MS, CGC, Assistant Director, Fresno **Admissions Inquiries:** 

GCProgram@ucsf.edu

## **Program Description**

The Genetic Counseling Program is a 21-month program of study leading to a Master of Science in Genetic Counseling. This is program for those who wish to be at the forefront of the genetic counseling profession and harness the potential of genomic medicine to advance healthcare.

The training program consists of three major components: foundational didactic education, clinical training, and research. The didactic curriculum embraces the latest advances in contemporary genetics while maintaining deep roots in humanistic counseling theory, and a commitment to the ethical application of genomic medicine. Clinical training experiences are available in a variety of campus genetics clinics and laboratories and expose students to the rich ethnocultural and socioeconomic diversity of the Bay Area. Partnerships with Bay Area genetics clinics provide students additional clinical training opportunities beyond the campus boundaries. Close proximity to Silicon Valley and the high concentration of biotechnology companies also allows for students to train in some of the nation's most recognized genetics private industry organizations. The research experience is highlighted through a scholarly capstone project of the student's own design, allowing students to develop a deep understanding of the research process while advancing the field of genetic counseling.

The Genetic Counseling Program provides a unique opportunity for one student, with a special interest in community practice, to spend their entire second year of clinical training in the Fresno region. UCSF maintains a branch training campus in Fresno, California at Community Regional Medical Center (CRMC). CRMC is a large tertiary care medical center providing complex care to residents of the central San Joaquin Valley. Fresno is a rural agricultural city located half way between San Francisco and Los Angeles.

### **Faculty**

The Genetic Counseling Program faculty consists of a diverse mix of veteran genetics educators from throughout the UCSF campus. As a strong partner in San Francisco area genetic counseling programs since the 1970s, UCSF brings decades of experience training genetic counselors to all facets of the program, from veteran educators, to knowledgeable research mentors and skilled clinical training supervisors.

#### **Career Outcomes**

Graduates from the Genetic Counseling Program are prepared to pursue numerous career paths after graduation, including clinical care, industry, research, advocacy and others. Successful completion of the program will confer eligibility to sit for the American Board of Genetic Counseling certification examination.

The Genetic Counseling Program is primarily based at the Mission Bay campus.

The Genetic Counseling program is offered by the UCSF Graduate Division. The Program is jointly administered by the Institute for Human Genetics and UCSF School of Medicine, Department of Pediatrics, Division of Medical Genetics. It is delivered by faculty and staff members in the UCSF School of Medicine.

## **Admission Requirements**

Applicants to the Genetic Counseling program will need to demonstrate successful completion of the following college-level courses (minimum of one quarter or semester) or their equivalents:

- · Introductory Genetics (for Science majors)
- · Organic Chemistry or Biochemistry
  - · Must include content on structure and function of biomolecules (e.g., nucleic and ribonucleic acids, proteins, lipids)
- Biology (2 quarters/semesters)
- · Introductory Statistics or Biostatistics
- · Introductory Psychology or Counseling
- · Biochemistry is highly recommended
- · Cellular and/or Molecular Biology are highly recommended
- · Anatomy and/or physiology are highly recommended

Applicants competitive for admission will also be able to demonstrate a good beginning knowledge of the genetic counseling profession and can clearly articulate how this career path aligns with their personal and professional goals. This type of knowledge is often obtained from direct experience(s) with the genetic counseling profession, experiences in fields that complement genetic counseling and/or research about the field. Examples of ways applicants often achieve a real-life understanding of the profession include, but are not limited to:

- Advocacy or education experience in a volunteer or paid position involving counseling or social services, such as working in a crisis intervention center, student health center, family planning clinic, disability services organization, or serving as a resident adviser or peer counselor.
- Direct contact with genetic counselors: interviewing or shadowing working genetic counselors. Opportunities for direct patient observation may be limited by HIPAA (patient confidentiality) regulations. Participating or observing in genetic counseling related activities (case conferences, professional conferences).
- Employment, internship or volunteer work in genetic counseling or genetics setting such as a clinic, laboratory, public health organization, non-profit advocacy group.
- · Attendance at genetic counseling interest events, conferences or workshops. Viewing the NSGC Master Genetic Counselor series.

## **Learning Outcomes**

The learning outcomes for our program are based on attainment of the Practice Based Competencies (https://www.gceducation.org/formsresources/) (PBCs) established by the Accreditation Council for Genetic Counseling (ACGC). The PBCs describe 7 practice-based competencies and 25 sub-competencies that an entry-level provider must demonstrate to successfully practice as a genetic counselor. The competencies are categorized in the following distinct domains: Genetics and Genomics

83.5

Expertise, Risk Assessment, Counseling, Communication, Research, Healthcare Systems and Professional Identity.

## **Degree Requirements**

The Genetic Counseling Program maintains academic standards that are in compliance with the UCSF Graduate Division (https://senate.ucsf.edu/graduate-council-regulations/#4). To successfully complete the program, students must fulfill the following degree requirements:

- a. Complete all required coursework with a C grade or higher; or successfully complete a remediation plan in the event of a course grade below a C.
- b. Maintain a cumulative GPA of 3.0 or higher.
- Pass clinical placements while demonstrating progress in achieving the Practice Based Competencies (https://www.gceducation.org/ forms-resources/) established by the Accreditation Council for Genetic Counseling (ACGC).
- d. Successfully complete a capstone research project.
- e. Successfully complete all Supplemental Experiences with associated requirements
- f. By the end of the program, demonstrate attainment of the Practice Based Competencies (https://www.gceducation.org/formsresources/) established by the Accreditation Council for Genetic Counseling (ACGC).
- g. Attend all classes, participate actively in all courses, and maintain the highest standards of academic integrity, professionalism and cultural humility in all facets of the academic program.

### **Core Courses**

Course	Title	Units
Year 1		
Fall Quarter		
GENCOUNSEL 201	Human Genetics	2.5
GENCOUNSEL 202	Clinical Cytogenetics	2
GENCOUNSEL 203	Research Methods for Genetic Counselors I	2
GENCOUNSEL 204	Principles of Counseling & the Lived Experience of Illness	2
GENCOUNSEL 205	Advanced Medical Genetics I	2.5
GENCOUNSEL 207	Clinical Embryology for Genetics Clinicians	1
	Units	12
Winter Quarter		
GENCOUNSEL 208	Research Methods for Genetic Counselors II	2
GENCOUNSEL 209	The Genetic Counseling Session: From Theory to Practice	2
GENCOUNSEL 210	Reproductive Genetics	2
GENCOUNSEL 211	Advanced Medical Genetics II	2.5
GENCOUNSEL 212	Graduate Seminar in Genetics I	1
GENCOUNSEL 213	Precision Medicine and Variant Interpretation	2
GENCOUNSEL 214	Externship I	1.5
	Units	13
Spring Quarter		
GENCOUNSEL 215	Hereditary Cancer Genomics	2
GENCOUNSEL 216	Social, Ethical & Legal Issues in Genetics	2
GENCOUNSEL 217	Graduate Seminar in Genetics II	1
GENCOUNSEL 218	Advanced Medical Genetics III	2.5
GENCOUNSEL 219	Foundational Counseling Skills	2
GENCOUNSEL 220	Externship II	1.5
GENCOUNSEL 224	Capstone Research Project	1.5
GENCOUNSEL 232	Reimbursement Fundamentals in Genomic Medicine	0.5
	Units	13

Year 2		
Summer		
GENCOUNSEL 224	Capstone Research Project	1.5
GENCOUNSEL 225	Clinical Rotation I	8.5
	Units	10
Fall Quarter		
GENCOUNSEL 221	Integral Topics to Genetic Counseling	2
GENCOUNSEL 224	Capstone Research Project	1.5
GENCOUNSEL 226	Clinical Rotation II	8
	Units	11.5
Winter Quarter		
GENCOUNSEL 222	Advanced Counseling Skills	2
GENCOUNSEL 224	Capstone Research Project	1.5
GENCOUNSEL 227	Clinical Rotation III	8
GENCOUNSEL 230	Process Group II	0.5
	Units	12
Spring Quarter		
GENCOUNSEL 223	Professional Formation	2
GENCOUNSEL 224	Capstone Research Project	1.5
GENCOUNSEL 228	Clinical Rotation IV	8
GENCOUNSEL 231	Process Group III	0.5
	Units	12

**Total Units** 

## Genetics (Tetrad) (PhD)

Visit program website. (https://tetrad.ucsf.edu/)

**Degree Offered:** PhD in Genetics **Program Leadership:** Natalia Jura, PhD, Director

David Toczyski, PhD, Co-Director **Admissions Inquiries:** 

Toni Hurley, Program Coordinator Danny Dam, Student Affairs Coordinator

## **Program Description**

The Tetrad graduate program prepares students to pose and address fundamental research problems in modern biology. The program highly values curiosity-driven research that investigates challenging questions in life sciences conducted in a collegial and scientifically rigorous manner. The program places special emphasis on modern approaches within three core and interrelated areas listed below. The research conducted under the Tetrad umbrella encompasses a wide range of structural, molecular, cellular, physiological, and pathophysiological questions.

The Tetrad program was among the first graduate programs nationwide to break down barriers between disciplines; emphasis on interdisciplinary research remains a guiding principle of the program. Hand-in-hand with promoting interdisciplinary research is the program's emphasis on fostering a strong sense of community and interactions among students and the program's cadre of internationally recognized scientists. Program activities include an annual retreat held in Lake Tahoe, a weekly seminar program featuring top scientists from around the world, and multiple other activities that provide student-faculty interactions in both formal and informal settings.

All Tetrad graduate students go through the same admission process, take the same classes, and have the same requirements. Depending on the specific aspects of their thesis work, their PhD degree will be in one of the indicated areas below.

#### **Faculty**

Over 120 faculty members are associated with the Tetrad program, representing all of the basic science departments of UCSF, numerous research centers such as the Helen Diller Family Comprehensive Cancer Center, the Cardiovascular Research Institute at UCSF, and the Institute for Neurodegenerative Diseases, and numerous clinical departments.

Tetrad is a member of the Program in Biological Sciences (https://pibs.ucsf.edu/) (PIBS) at UCSF.

### **Sub-disciplines**

- · Biochemistry and Molecular Biology
- · Cell Biology
- · Genetics

The Tetrad program office is located at the Mission Bay campus, though some classes and labs affiliated with the program are at the Parnassus campus as well.

The Tetrad program is offered by the UCSF Graduate Division, administered by the UCSF Department of Biochemistry and Biophysics,

and delivered by faculty members in the UCSF schools of dentistry, medicine, and pharmacy.

## **Admission Requirements**

Because of the interdisciplinary nature of the Tetrad Graduate Program, we expect that entering graduate students will have diverse undergraduate preparation. Students with backgrounds in anatomy, biochemistry, biology, chemistry, physics and related fields are welcome to apply, providing they have demonstrated a high level of academic proficiency (generally a grade point average of 3.0 or higher in relevant science courses). Evidence of exposure to scientific research, generally as participation in a research project during at least one year (preferably two or more years), is regarded as an important attribute of the successful applicant.

## **Learning Outcomes**

- a. Establish a foundation of knowledge in the fundamental principles underlying biological processes, from molecules to organisms. This objective is enabled by 1st year coursework that emphasizes basic concepts, methods of discovery, and lifelong learning, followed in later years by individual thesis projects that are motivated by addressing fundamental questions of cellular or organismal function in mechanistic depth.
- b. Learn to critically evaluate the literature and assess the significance of a given biological question. This objective is enabled by in-depth paper discussions and proposal writing within courses in the 1st year, journal clubs and qualifying exam in the 2nd year, and literature study throughout the thesis project.
- c. Learn to independently make original research contributions through rigorous experimental design, data analysis and interpretation. This objective is enabled through activities such as solving problem sets and formulation of research proposals on new questions in the 1st year, the NSF proposal writing workshop and qualifying exam in the 2nd year, and mentorship by thesis mentor and thesis committee during the thesis project.
- d. Learn to work across disciplines to leverage the strengths of collaborators from different scientific backgrounds. This objective is enabled by the multi-disciplinary nature of the first-year course work, peer-peer learning that leverages the diversity of scientific backgrounds within each class, the multidisciplinary nature of the research programs of most faculty members, the presence of students from different graduate programs in a given thesis lab and a strong ethos of collaboration amongst the different laboratories at UCSF.
- e. Learn how to promote and support an inclusive scientific environment. This objective is enabled through training activities that include diversity workshops for 1st year students, collaboration with faculty who participate in diversity and inclusion-promoting campus organizations, opportunities to mentor summer research students from under-represented backgrounds, and participation in outreach events.
- f. Establish values that drive the responsible and ethical practice of science. This fundamental objective is enabled through examples of best scientific practices threaded throughout the 1st year courses, two focused courses in the Responsible Conduct of Research in the 1st and 5th years, journal clubs, seminar series, day-to-day mentormentee interactions and thesis committee meetings.
- g. Develop skills for effective oral and written communication of complex scientific ideas and findings. This objective is enabled through the writing and oral defense of research proposals in two 1st year

courses, journal club presentations, writing and oral defense of a qualifying exam proposal, writing an NSF proposal, presentations in lab meetings and thesis committee meetings, presentations at scientific meetings within and outside UCSF, and the program requirement for thesis completion of writing at least one manuscript on original work for publication in a peer-reviewed journal.

### **Additional Information**

### **Program Faculty**

 Find a program faculty list (https://tetrad.ucsf.edu/faculty/) on the program website.

### **Career Outcomes**

 Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

## **Degree Requirements**

### **Doctoral**

- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- Complete and submit the dissertation based on the current Tetrad guidelines
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

### **Core Courses**

Course	Title	Units
Year 1		
BIOCHEM 200A	Structure of Macromolecules	3
BIOCHEM 201A	Biological Regulatory Mechanisms	4
BIOCHEM 220	Biochemistry Basic Science Seminar Series	1
BIOCHEM 215	Laboratory Rotation (Taken all terms)	9
BIOCHEM 225	Research in Progress Seminar	1
CELL BIOL 245	Cell & Developmental Biology	4
GENETICS 200A	Principles of Genetics	3
GRAD 202	Racism in Science	3
Various: 2-3 minicourses		2-3
GRAD 214	Responsible Conduct of Research and Rigor &	1.5
	Reproducibility	
	Units	31.5-32.5
Year 2	Units	31.5-32.5
Year 2 BIOCHEM 225	Units  Research in Progress Seminar	<b>31.5-32.5</b>
		0.10 02.0
BIOCHEM 225	Research in Progress Seminar	1
BIOCHEM 225 GENETICS 250	Research in Progress Seminar	1
BIOCHEM 225 GENETICS 250	Research in Progress Seminar Research (Taken all terms)	1 24
BIOCHEM 225 GENETICS 250 Any approved electives	Research in Progress Seminar Research (Taken all terms)	1 24
BIOCHEM 225 GENETICS 250 Any approved electives  Year 3 and Beyond	Research in Progress Seminar Research (Taken all terms) Units	24
BIOCHEM 225 GENETICS 250 Any approved electives  Year 3 and Beyond GENETICS 250	Research in Progress Seminar Research (Taken all terms)  Units  Research (Taken all terms)	1 24 25
BIOCHEM 225 GENETICS 250 Any approved electives  Year 3 and Beyond GENETICS 250 BIOCHEM 225	Research in Progress Seminar Research (Taken all terms)  Units  Research (Taken all terms)	1 24 25

### **Approved Electives**

• •		
Code	Title	Units
BIOCHEM 210	Special Topics	3
BIOCHEM 241	Startup 101	3
BIOMED SCI 270	Special Topics in Biomedical Sciences	3
BIO MD INF 219	Special Topics in Bioinformatics	3
BIOPHYSICS 219	Special Topics in Biophysics	3
CHEMISTRY 219	Special Topics in Basic and Translational Chemical Biology	3
GRAD 210	Justice, Equity, Diversity and Inclusion Academic Leadership (with approval from the Graduate Division)	4
GRAD 213	Motivating INformed Decisions (MIND) Catalytic Course	2
DEV STMCEL 270	Special Topics in Developmental & Stem Cell Biology	3
GRAD 286	GSICE Curricular Practicum	1
GRAD 219A	Special topics in racism and social justice in science	3
GRAD 219B	Special topics in racism and social justice in science	3
GRAD 219C	Special topics in racism and social justice in science	3
NEUROSCI 219	Special Topics in Basic and Translational Neuroscience	3

Other electives may be approved by program on a case-by-case basis

## **Non-course Core Requirements**

- a. Attendance and participation in introductory bootcamp: We realize that our incoming students come from a wide variety of experimental backgrounds, so the first year begins with a series of intensive hands-on workshops on cutting-edge concepts and experimental techniques that will be useful in a modern biomedical research lab.
- b. Passing qualifying exam
- c. Teaching Assistantship in year 2
- d. Submission/publication of first-author research paper
- e. Presentation of thesis talk

## **Global Health Sciences (MS)**

Visit program website. (https://globalhealthsciences.ucsf.edu/education/masters/)

Degree Offered: MS Program Leadership:

Christopher Carpenter, MD, MPH, Program Director Alden Blair, PhD, MSc, Associate Director Ingrid Chen, PhD, MS, Associate Director

**Admissions Inquiries:** 

education.globalhealth@ucsf.edu

## **Program Description**

The Master of Science in Global Health in the UCSF Institute for Global Health Sciences (IGHS) is designed for those who wish to gain global health knowledge, skills, and experience through an interdisciplinary curriculum that emphasizes research methods, population health, and the social, economic, and environmental determinants of health in a globalized world. The master's curriculum covers themes in Foundations of Global Health, Scientific Methods, Diseases and Determinants, and Health Systems and Policy. Students completing this degree will be prepared for a career in research, policy, organizational leadership, academia, or program management and evaluation.

Lectures, seminars, case studies, debates, and team-based projects introduce students to critical aspects of global health practice. The learning environment is dynamic and emphasizes faculty involvement, peer teaching, problem-solving, and discussion.

A centerpiece of the program is each student's individual capstone project, conducted in locations around the world, which emphasizes study design, practicalities of field research, and cultural humility. This project allows students to obtain depth of expertise in a specific topic and method.

## **Admission Requirements**

### **Admissions Criteria**

We accept applications from students from all academic backgrounds. Diversity of experience enhances dialogue in our classes, creating immersive experiences that mimic global health leadership settings where decisions on program implementation, funding, policy change, and more are made. Our student base is united in their commitment to conducting excellent impact-driven work, and we seek a demonstrated track record for this based on grade-point average, diversity of courses taken in undergraduate studies, letters of recommendation, and more.

You must have the following qualifications to apply:

- Bachelor's degree, or the equivalent from an accredited institution, with at least a 3.0 GPA
- Completion of at least one college-level course in mathematics (e.g., calculus, algebra, statistics) or sciences (biology, chemistry, physics), with at least a B grade.
- · English proficiency for non-native speakers

### **How to Apply**

To be eligible for admission, submit the following materials via the UCSF Graduate Division online application (https://gradapp.ucsf.edu/register/apply/) by the application deadline.

- Three letters of recommendation: The letters should address your academic strengths, personal qualities, and accomplishments, as well as how the MS degree will contribute to your career growth. At least one letter should be from someone familiar with your academic strengths and weaknesses. All recommendations must be written on official letterhead and submitted electronically via the UCSF application (https://gradapp.ucsf.edu/register/apply/). Contact your recommenders to ensure they receive the automated email request (in case it goes to a junk or spam folder) and they submit their letters before the deadline. You can monitor the status of your recommendations on your application (https://gradapp.ucsf.edu/register/apply/).
- Résumé or curriculum vitae (no more than 3 pages): Summarize your education, professional experience, publications, languages spoken, honors and awards, local and international experience, extracurricular interests, and special skills.
- Personal statement (short responses): Address your reasons for applying, prior global health experience with underserved populations (local or international), personal expectations of the program, and global health career goals. If your GPA is less than 3.0, please thoroughly explain the circumstances here.
- Transcripts from all academic institutions you attended: Upload to
  your application all unofficial transcripts from each institution you
  attended, even if you did not receive a degree. The program does not
  require official transcripts until admission. See additional details on
  the FAQ page (https://globalhealthsciences.ucsf.edu/education/
  masters/frequently-asked-questions/).
- Application fee: U.S. citizens or permanent residents may qualify for an application fee waiver. See guidelines on Application Fee Waivers (https://graduate.ucsf.edu/application-fee-waivers/) to determine your eligibility for this exemption. To request the waiver, select the "application fee waiver" option in the payment area of the online application.
- Test scores: Graduate-level tests are not required for entry to this
  program, but if you have taken the GRE, MCAT, LSAT, or GMAT, you
  may choose to self-report your scores. To do so, you may email a
  copy of your score report to education@globalhealth.ucsf.edu. You
  do not need to send official score reports to UCSF through the official
  test site systems.
- TOEFL or IELTS scores: If you are a non-native English speaker, you
  must demonstrate English proficiency in one of three ways:
- Submit an official transcript showing you completed at least one year
  of study at an accredited college or university in the United States
  with a minimum GPA of 3.0.
- Submit an official transcript showing you completed either your bachelor's or graduate degree or the equivalent from an accredited, English-speaking college or university with a minimum GPA of 3.0.
- Submit TOEFL (https://www.ets.org/toefl/) or IELTS (https://www.ielts.org/) scores that are no more than two years old. Please submit official scores to UCSF's institutional code 4840 and email a copy of your score report to education@globalhealth.ucsf.edu.

The program accepts the following minimum scores based on the type of test:

Test Type	Minimum Score
Paper-based TOEFL	550
Computer-based TOEFL	213

Internet-based TOEFL iBT 80
IELTS 7

#### **Additional Admissions Process**

- When an application is complete and the application fee has been paid or waived, the graduate program's admission committee makes a recommendation to the Graduate Division for admission or denial.
   Final authority to admit or deny admission resides with the dean of the Graduate Division. The dean will not admit a student without the concurrence of the faculty of a graduate program; however, the dean may deny admission even if acceptance is recommended by the committee.
- Once the graduate program and graduate dean have made their admission recommendations, the Graduate Division sends a notice to the applicant via email. Applicants may then log into their online application account to view their admission status. They will also be able to view or print an official Graduate Division letter of admission (or denial of admission), signed by the dean of the Graduate Division. If offered admission, applicants will also indicate their intention to accept or not accept admission via the online application system.
- All students are required to submit documentation of immunizations and complete a tuberculosis screening questionnaire. For more details on the requirements visit the Student Health and Counseling Service (https://studenthealth.ucsf.edu/new-student-immunization-requirements/) website.
- Admission to an intercampus joint degree program requires approval by the deans and faculty of both campuses.
- The Graduate Division does not admit students to non-degree or unclassified status for the purpose of course work only. Students must apply for a specific degree.
- UCSF welcomes applications for admission from undocumented individuals, such as those who qualify under Deferred Action for Childhood Arrivals (https://undocu.berkeley.edu/legalsupport-overview/what-is-daca/) (DACA) and/or AB540 (https:// admission.universityofcalifornia.edu/tuition-financial-aid/tuitioncost-of-attendance/ab-540-nonresident-tuition-exemption.html).
   Please visit the website of the UC Office of the President (https:// undoc.universityofcalifornia.edu/) (UCOP) for more information.

## **Learning Outcomes**

- · Acknowledge one's limitations in skills, knowledge, and ability
- Apply leadership practices that support collaborative practice and team effectiveness
- Apply project management techniques throughout program planning, implementation, and evaluation
- Apply social justice and human rights principles in addressing global health problems
- Apply the fundamental principles of international standards for the protection of human subjects in diverse cultural settings
- Articulate barriers to health and healthcare in low-resource settings locally and internationally
- Co-create strategies with the community to strengthen community capabilities and contribute to reduction in health disparities and improvement of community health
- Collaborate with a host or partner organization to assess the organization's operational capacity
- Communicate joint lessons learned to community partners and global constituencies

- · Conduct a community health needs assessment
- Conduct a situational analysis across a range of cultural, economic and health contexts
- Demonstrate a basic understating of the relationship between health, human rights, and global inequities
- · Demonstrate a commitment to social responsibility
- Demonstrate an awareness of local and national codes of ethics relevant to one's working environment
- Demonstrate an understanding of and an ability to resolve common ethical issues and challenges that arise in working within diverse economic, political, and cultural contexts, as well as working with vulnerable populations
- Demonstrate diplomacy and build trust with community partners
- Demonstrate integrity, regard, and respect for others in all aspects of professional practice
- Demonstrate the ability to adapt clinical or discipline-specific skills and practice in a resource-constrained setting
- Describe different national models or health systems for provision of healthcare and their respective effects on health and healthcare expenditure
- Describe general trends and influences in the global availability and movement of healthcare workers
- Describe how cultural context influences perceptions of health and disease
- Describe how global trends in healthcare practice, commerce and culture, multinational agreements and multinational organizations contribute to the quality and availability of health and healthcare
- Describe how travel and trade contribute to the spread of communicable and chronic diseases
- Describe major public health efforts to reduce disparities in global health (such as Millennium Development Goals and the Global Fund to Fight AIDS, Tuberculosis and Malaria)
- Describe the role of WHO in linking health and human rights, the Universal Declaration of Human Rights, and International Ethical Guidelines for Biomedical Research involving Human Subjects
- Describe the major causes of morbidity and mortality around the world and how the risk of disease varies by region
- Describe the relationship between access to and quality of water, sanitation, food, and air on individual and population health
- Describe the roles and relationships of the major entities influencing global health and development
- Design context-specific health interventions based upon situation analysis
- Develop understanding and awareness of the healthcare workforce crisis in the developing world, the factors that contribute to this, and strategies to address this problem
- Exhibit inter-professional values and communication skills that demonstrate respect for and awareness of unique cultures, values, and roles/responsibilities
- Identify how demographic and other major factors can influence patterns of morbidity, mortality, and disability in a defined population
- Implement strategies to engage marginalized and vulnerable populations in making decisions that affect their health and wellbeing
- Include representatives of diverse constituencies in community partnerships and foster interactive learning with these partners
- Integrate community assets and resources to improve the health of individuals and populations

- List major social and economic determinants of health and their impacts on the access to and quality of health services and on differences in morbidity and mortality between and within countries
- · Plan, implement, and evaluate an evidence-based program
- Validate the health status of populations using available data (e.g., public health surveillance data, vital statistics, registries, surveys, electronic health records, and health plan claims data)

### Additional Information

The master's program boasts a low faculty-to-student ratio with courses taught directly by world-renowned global health researchers and practitioners. Dozens of faculty members (https://globalhealthsciences.ucsf.edu/education/masters/faculty-and-staff/) from UCSF's four professional schools (medicine, pharmacy, dentistry, and nursing) and the Graduate Division, as well as from other UC campuses and the broader community, teach and mentor the master's students.

### **Teaching Faculty**

• Find a program faculty list (https://globalhealthsciences.ucsf.edu/education/masters/faculty-and-staff/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on master's programs (https://graduate.ucsf.edu/ghs-ms-statistics/) on the Graduate Division website.

Graduates with an MS in Global Health often pursue further degrees (especially MD or PhD degrees) or work in academia, governmental agencies, NGOs or other non-profit settings. Note that IGHS also offers a PhD program in Global Health Sciences (p. 83).

## **Degree Requirements**

The policy regarding satisfactory academic progress in the Master of Science in Global Health program is as follows:

- a. Students must attend all classes, participate actively in all courses, maintain academic integrity, and complete all requested course/ faculty/CA evaluations. Students must follow all UCSF policies:
  - · Campus Code of Conduct
  - · Policy on Student Conduct and Discipline
  - · Graduate Division's Policy on Student Progress
- Students must meet regularly with their mentors and complete CITI training.
- c. Students must pass their oral and written qualifying exam at the end of the winter quarter in order to advance to candidacy and work on their capstone project.
- d. Students must advance to candidacy at least two quarters before participating in the comprehensive exam.
- e. Students must maintain the highest standards of academic integrity, professionalism, and cultural humility in the program, as reported by course directors, course assistants, capstone mentor, site mentors, academic advisers, staff, and other faculty.
- Students must pass their oral and written comprehensive exam by the end of the summer quarter.
- g. Students must pass all of their courses (grades of C or higher in any given class), and maintain a cumulative GPA of equal to or greater than 3.0. This is equivalent to a B average.

 Students are expected to complete all degree requirements within one year.

### **Core Courses**

### Curriculum

The interdisciplinary curriculum of the Master of Science in Global Health program provides a comprehensive introduction to important topics, research methods, and skills necessary for careers in global health. Students learn multiple perspectives on global health problems and solutions in a dynamic learning environment that emphasizes active participation, peer teaching, problem-solving and discussion. Upon completion of the program, students are prepared for careers in research, policy, organizational leadership, academia, and program management and evaluation

In addition to mastering the content and process of global health as a field of study and scholarship, students learn leadership and communication skills and have ample opportunities to practice their skills in the classroom and in the field. Professional development activities include career panels and guidance on CV preparation and interviewing.

The centerpiece of the academic program is the capstone project (https://globalhealthsciences.ucsf.edu/education/masters-program/capstone-research/) — an opportunity for students to focus on a particular area of interest and apply rigorous scholarship to active projects in global health.

All classes are held on the UCSF Mission Bay (https://www.ucsf.edu/about/locations/mission-bay/) campus and the capstone research projects are conducted in the US and around the world during one quarter of the program. Students work closely with the teaching faculty, advisers, capstone mentors, and program leaders, and study alongside diverse classmates who represent a wide variety of academic and professional backgrounds, interests, and countries of origin.

#### Coursework

The master's curriculum is organized in thematic blocks:

- · Foundations of Global Health
- · Scientific Methods
- · Diseases and Determinants
- · Systems and Policy

Coursework includes lectures, seminars, case studies, debates and teambased projects. All courses are required, with the exception of a single elective opportunity in the winter quarter. Courses are subject to change.

Course	Title	Units
Fall Quarter		
GLOBL HLTH 201A	Foundations of Global Health	3
GLOBL HLTH 201C	Qualitative Research Approaches in Global Health	3
GLOBL HLTH 203A	Global Health Practice Seminar	2
GLOBL HLTH 206	Introduction to Epidemiology	3
GLOBL HLTH 207	Introduction to Biostatistics	6
	Units	17
Winter Quarter	Units	17
Winter Quarter GLOBL HLTH 201B	Units Global Health Economics	17
•		
GLOBL HLTH 201B	Global Health Economics	3
GLOBL HLTH 201B GLOBL HLTH 202A	Global Health Economics Global Infectious Diseases	3

Elective		2-3
	Units	16-17
Spring Quarter		
GLOBL HLTH 202B	Health, the Environment and Non-communicable Disease	3
GLOBL HLTH 203C	Global Health Practice Seminar	2
GLOBL HLTH 204A	Global Health Capstone	3
GLOBL HLTH 209	Comparative Health Systems: Financing and	3
	Delivering Health	
	Units	11
Summer Quarter		
GLOBL HLTH 203D	Global Health Practice Seminar	2
GLOBL HLTH 204B	Global Health Capstone	3
	Units	5
	Total Units	49-50

## **Non-course Core Requirements**

· Global Grand Rounds

## **Degree Requirements**

The policy regarding satisfactory academic progress in the Master of Science in Global Health program is as follows:

- a. Students must attend all classes, participate actively in all courses, maintain academic integrity, and complete all requested course/ faculty/CA evaluations. Students must follow all UCSF policies:
  - Campus Code of Conduct
  - · Policy on Student Conduct and Discipline
  - · Graduate Division's Policy on Student Progress
- Students must meet regularly with their mentors and complete CITI training.
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- d. Students must advance to candidacy at least two quarters before participating in the comprehensive exam.
- e. Students must maintain the highest standards of academic integrity, professionalism, and cultural humility in the program, as reported by course directors, course assistants, capstone mentor, site mentors, academic advisers, staff, and other faculty.
- f. Students must pass their oral and written comprehensive exam by the end of the summer quarter.
- g. Students must pass all of their courses (grades of C or higher in any given class), and maintain a cumulative GPA of equal to or greater than 3.0. This is equivalent to a B average.
- Students are expected to complete all degree requirements within one year.

### **Core Courses**

### Curriculum

The interdisciplinary curriculum of the Master of Science in Global Health program provides a comprehensive introduction to important topics, research methods, and skills necessary for careers in global health. Students learn multiple perspectives on global health problems and solutions in a dynamic learning environment that emphasizes active participation, peer teaching, problem-solving and discussion. Upon completion of the program, students are prepared for careers in research,

policy, organizational leadership, academia, and program management and evaluation.

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The centerpiece of the academic program is the capstone project (https://globalhealthsciences.ucsf.edu/education/masters-program/capstone-research/) — an opportunity for students to focus on a particular area of interest and apply rigorous scholarship to active projects in global health.

All classes are held on the UCSF Mission Bay (https://www.ucsf.edu/about/locations/mission-bay/) campus and the capstone research projects are conducted in the US and around the world during one quarter of the program. Students work closely with the teaching faculty, advisers, capstone mentors, and program leaders, and study alongside diverse classmates who represent a wide variety of academic and professional backgrounds, interests, and countries of origin.

#### Coursework

The master's curriculum is organized in thematic blocks:

- · Foundations of Global Health
- · Scientific Methods
- · Diseases and Determinants
- · Systems and Policy

Coursework includes lectures, seminars, case studies, debates and teambased projects. All courses are required, with the exception of a single elective opportunity in the winter quarter. A **sample** schedule is listed below. Courses are subject to change.

Course	Title	Units
Year 1		
Fall Quarter		
GLOBL HLTH 206	Introduction to Epidemiology	3
GLOBL HLTH 207	Introduction to Biostatistics	6
	Units	9
Winter Quarter		
GLOBL HLTH 201B	Global Health Economics	3
GLOBL HLTH 202D	Social Determinants of Health	3
Elective		2-3
	Units	8-9
Spring Quarter		
GLOBL HLTH 209	Comparative Health Systems: Financing and Delivering Health	3
	Units	3
Year 2		
Fall Quarter		
GLOBL HLTH 201A	Foundations of Global Health	3
GLOBL HLTH 201C	Qualitative Research Approaches in Global Health	3
GLOBL HLTH 203A	Global Health Practice Seminar	2
	Units	8
Winter Quarter		
GLOBL HLTH 202A	Global Infectious Diseases	3
GLOBL HLTH 203B	Global Health Practice Seminar	2
GLOBL HLTH 205	Global Health Policy	3
<u> </u>	Units	8

Summer Quarter		
	Units	8
GLOBL HLTH 204A	Global Health Capstone	3
GLOBL HLTH 203C	Global Health Practice Seminar	2
GLOBL HLTH 202B	Health, the Environment and Non-communicable Disease	3
Spring Quarter		

	Total Units	49-50
	Units	5
GLOBL HLTH 204B	Global Health Capstone	3
GLOBL HLTH 203D	Global Health Practice Seminar	2

## **Non-course Core Requirements**

· Global Grand Rounds

## **Global Health Sciences (PhD)**

Visit program website. (https://globalhealthsciences.ucsf.edu/education/phd/)

Degree Offered: PhD Program Leadership:

Elizabeth Fair, PhD, MPH, Director

Ali Mirzazadeh, PhD, MD, MPH, Associate Director

**Admissions Inquiries:** 

education.globalhealth@ucsf.edu

## **Program Description**

The Doctor of Philosophy (PhD) degree program in Global Health Sciences provides students with a deep knowledge of important global health issues, as well as a high level of skill in health research methodology and practice.

This interdisciplinary program trains doctoral students on methods and modes of inquiry drawn from public health, public policy, economics, development studies, implementation science and the social sciences to explore and address global health problems. Students graduate with comprehensive skills, training and experience in global health research and practice.

The program is structured as a four-year degree. Students typically spend the first two years in residence at the Mission Bay campus (https://www.ucsf.edu/about/locations/mission-bay/), completing coursework and engaging in research rotations and teaching residencies with the faculty at UCSF. After completing the core curriculum and passing the qualifying examinations, students spend the next two years focused on conducting their dissertation research and engaging in other research and professional activities under the guidance of research advisers and faculty mentors.

## **Admission Requirements**

### **Admissions Criteria**

Applicants must have the following qualifications to apply:

- A master's degree or terminal professional degree with at least a 3.0 GPA
- At least two years of experience working in global health and/or with underserved populations
- · Prior exposure to scientific research

The program places a very high value on the diversity of students who matriculate and reviews all applicants in a holistic manner. Applicants who come from traditionally underrepresented populations and students who have faced hardships are encouraged to apply. See our Diversity, Equity, and Inclusion in Education statement (https://globalhealthsciences.ucsf.edu/about-us/diversity-equity-and-inclusion/).

### How to Apply

Submit the following required materials to the UCSF Graduate Division online application, where you will find more detailed instructions:

 Three letters of recommendation: All recommendations must be submitted electronically via the UCSF application (https:// gradapp.ucsf.edu/register/apply/). Contact your recommenders to ensure they receive the automated email request and they submit

- their letters before the deadline. You can monitor the status of your recommendations on your application.
- Résumé or curriculum vitae: Summarize your education, professional experience, publications, languages spoken, honors and awards, local and international experience, extracurricular interests, and special skills.
- Statement of Purpose (1 page, single spaced, minimum 11-point font): Address your reasons for applying to the UCSF PhD program in Global Health Sciences, describe why you chose the field of global health for your doctorate, and describe your professional and academic goals.
- Transcripts from all academic institutions you attended: Upload unofficial transcripts from each institution you attended, even if you did not receive a degree. The program does not require official transcripts until the interview stage. See additional details on the FAQ page (https://globalhealthsciences.ucsf.edu/education/phd/ frequently-asked-questions/).
- Application fee: U.S. citizens or permanent residents may qualify
  for an application fee waiver. See guidelines on Application Fee
  Waivers (https://graduate.ucsf.edu/application-fee-waivers/) to
  determine eligibility for this exemption. To request the waiver, select
  the "application fee waiver" option in the payment area of the online
  application.
- Test scores: Graduate-level tests are not required for entry to this
  program, but if you have taken the GRE you may choose to self-report
  your scores. To do so, you may email a copy of your score report to
  education@globalhealth.ucsf.edu. You do not need to send official
  GRE score reports to UCSF through the GRE system.
- TOEFL or IELTS scores: If you are a non-native English speaker, you
  must demonstrate English proficiency in one of three ways:
- Submit an official transcript showing you completed at least one year of full-time academic coursework at an accredited college or university in the United States with a minimum GPA of 3.0.
- Submit an official transcript showing you completed either your bachelor's or graduate degree or the equivalent from an accredited, English-speaking college or university with a minimum GPA of 3.0.
- Submit TOEFL (https://www.ets.org/toefl/) or IELTS (https://www.ielts.org/) scores that are no more than two years old. Please submit official scores to UCSF's institutional code 4840 and email a copy of your score report to education@globalhealth.ucsf.edu.

The program accepts the following minimum scores based on the type of test:

Test Type	Minimum Score
Paper-based TOEFL	550
Computer-based TOEFL	213
Internet-based TOEFL iBT	80
IELTS	7

## **Learning Outcomes**

The doctoral program curriculum provides students comprehensive global health knowledge and research skills to prepare for diverse careers and leadership in the field of global health.

#### **Research Methods**

Students receive fundamental training in research methodologies critical to conducting and comprehending global health research, including:

- Epidemiology
- · Biostatistics
- · Implementation science
- · Demography
- · Qualitative and Mixed-Methods research

Students then take advanced coursework in at least one methodology most applicable to their research interests.

### **Global Health Proseminars**

Students take core coursework in the principles and challenges of global health and study the key institutions, frameworks, and approaches for facing those global health challenges through a doctoral-level global health Proseminar Series. Students explore and analyze in-depth the topics that are cross-cutting to all work in the field of global health. The Proseminar Series serves as the backbone of the PhD curriculum:

- · Global health development and inequity
- · Comparative health systems and financing
- · Global health policy
- · Research ethics and practice in global health
- · Global health economics
- · Global health architecture and diplomacy

#### **Doctoral Seminar**

The global health doctoral seminar is designed to provide professional development skills and career training/mentorship in global health research. The doctoral seminar focuses on enabling students to advance their academic and research skills, with the ultimate goal of facilitating the development of the doctoral student's capacity to conduct research in global health. Seminar consists of several types of class sessions, including but not limited to:

- Guest speaker presentations on their work in global health, from across UCSF and beyond;
- Novel methods seminars to expose students to an array of research methods in which they might want to gain further training;
- Writing workshops focused on scientific writing, peer review and publication procedures, and grant writing to help prepare students for successful careers in global health research; and
- Student "works in progress" (WIP) presentations, in which faculty and students provide feedback to presenters on their research.

Doctoral seminar is led by the Program Directors and meets weekly in the fall, winter, and spring quarters in the first two years of the program, while students are completing their coursework and specifying their dissertation research.

### Mentorship

Doctoral students work closely with teaching faculty, academic and research advisers, and program leaders to receive one-on-one mentoring as they progress through coursework, qualifying exams, and dissertation research and writing.

#### **Research Rotations**

During the first two years of coursework, students complete two research rotations with mentors of their choice. Research rotations provide an opportunity for experiential learning: Students apply the concepts they have studied in the classroom to real-world situations, where they learn practical aspects of conducting global health research and are exposed

to new areas of research and methodologies. In addition to expanding students' education, research rotations are excellent opportunities for students to get to know faculty who may serve as future mentors or members of their doctoral committee. Students also may arrange for research rotations in global health settings outside of UCSF, for example, with the World Health Organization, Centers for Disease Control and Prevention, or other public or private organizations.

### **Teaching Residencies**

Doctoral students are required to complete two teaching residencies during their time in the program. Teaching residencies help further develop student's skills in specific areas under the tutelage of experienced faculty, which in turn prepares them for future educational roles, including as faculty.

## **Additional Information**

### **Teaching Faculty**

An extensive network of faculty, researchers, global health practitioners and staff works with the Institute for Global Health Sciences to teach, advise, mentor and support students in the PhD program. Many of the faculty and mentors are leaders in their fields. They come from the UCSF Schools of Medicine, Pharmacy, Dentistry and Nursing, as well as from other UC campuses, Bay Area universities, and the wider global health community.

 Find a program faculty list (https://globalhealthsciences.ucsf.edu/ education/phd/faculty-and-staff/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate
 Division website.

## **Degree Requirements**

- · Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- Pass qualifying examination
- Completion and submission of the dissertation approved by Doctoral Committee
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

### **Core Courses**

As stated above, students take required coursework in research methods training and global health content, including:

Code	Title	Units
GLOBL HLTH 201C	Qualitative Research Approaches in Global Health	3
GLOBL HLTH 207	Introduction to Biostatistics	6
GLOBL HLTH 217	Doctoral Seminar	2
GLOBL HLTH 251	Global Health Development and Inequity	2
GLOBL HLTH 252	Comparative Health Systems and Financing	2
GLOBL HLTH 253	Global Health Policy	2

Total Units		37.5
IMPLMT SCI 267	Qualitative Methods	2
IMPLMT SCI 245	Introduction to Implementation Science: Theory and Design	2
EPIDEMIOL 263	Demographic Methods for Health	1.5
EPIDEMIOL 214	Systematic Reviews	1
EPIDEMIOL 207	Epidemiologic Methods II	3
BIOSTAT 208	Biostatistical Methods II	3
GLOBL HLTH 260	Epidemiologic Methods for Global Health Research	4
GLOBL HLTH 256	Global Health Architecture and Diplomacy	2
GLOBL HLTH 254	Research Ethics and Practice in Global Health	2

## **Non-course Core Requirements**

In addition to the core curriculum, students tailor their coursework and choose electives that provide further depth of training in the methodology and content areas appropriate for their chosen field of study. Students may select electives from any department across UCSF, with the approval of their academic advisor and the program director. Students also may register for certain courses at other Bay Area universities through the University of California Intercampus Exchange Program (https://registrar.ucsf.edu/registration/intercampus-exchange/) and the San Francisco Consortium (https://registrar.ucsf.edu/registration/sf-consortium/).

Electives offered by the following departments within UCSF may be of particular interest:

- Epidemiology and Biostatistics: Training in Clinical Research (https://ticr.ucsf.edu/)
- Epidemiology and Biostatistics: Implementation Science (https://epibiostat.ucsf.edu/online-certificate-implementation-science/)
- Humanities and Social Sciences: Medical Anthropology and History of Health Sciences (https://humsci.ucsf.edu/)
- Nursing (https://nursing.ucsf.edu/academics/programs/phdnursing/)
- · Nursing: Health Policy (https://nursinghealthpolicy.ucsf.edu/PhD/)
- Sociology (https://sociology.ucsf.edu/sbs-course-schedule/)

# Healthcare Administration and Interprofessional Leadership (MS)

Visit program website. (https://healthleadership.ucsf.edu/)

**Degree Offered:** MS **Program Leadership:** 

Kathryn Wise, OTD, MHSc, OTR/L, Program Director

Admissions Inquiries: Kelly Lee, Program Assistant

## **Program Description**

The Healthcare Administration and Interprofessional Leadership master's program (MS HAIL) is an innovative online graduate program providing healthcare administrators with opportunities to learn from expert faculty and leaders in healthcare, collaborate with interprofessional peers, contribute to their healthcare organization's mission, and develop a network of colleagues committed to making healthcare accessible, affordable, and sustainable.

- · Enroll in Fall or Spring
- · Graduate in only 12 months
- Learn and interact online with experts and colleagues
- · Attend three on-campus sessions
- · Implement a quality improvement project at your workplace

Graduates from the program — one of UCSF's first online education programs — will gain new knowledge and competencies needed to reshape the future of healthcare. Students will study with UCSF's highly esteemed, interprofessional faculty and healthcare leaders, and will become proficient in health systems research, healthcare policy and economics, leadership and organizational change, effective business practices and management of social and human capital.

For more information about this program, please visit the MS HAIL program website (https://healthleadership.ucsf.edu/).

Applications are accepted in late summer (July) and winter (January).

The Healthcare Administration and Interprofessional Leadership program is offered by the UCSF Graduate Division, administered by the UCSF School of Nursing, and delivered by faculty members in UCSF schools.

## **Admission Requirements**

- · Submission of a completed online application.
- Bachelor's degree from a regionally accredited institution with a minimum cumulative grade point average of 3.0.
- Official academic transcripts of undergraduate degree(s), any other degrees, and any other college/university courses completed.
   Applicants who completed degrees or course work outside of the U.S. must submit a course-by-course credential evaluation in English from a credential evaluation service that is a member of NACES, such as World Education Services or Education Credential Evaluators.
- Applicants must be employed within a healthcare organization and remain employed while in the program. To be competitive, applicants should have at least two years of consecutive professional or management healthcare experience prior to starting.
- · Resume/CV
- Three letters of reference are required. One must be from a former faculty or someone who can speak to your academic potential,

a second from someone well acquainted with your professional preparation, experience and potential for leadership, and a third from an administrator within your healthcare organization.

- · Personal and Goal Statements
- · Interprofessional Capstone Project Idea
- · Proficiency in English and academic writing

### **Learning Outcomes**

At the end of the MS-HAIL program, students will be able to:

- Employ effective communication and relationship management strategies across disciplines to create and sustain an inclusive organizational culture that inspires collaboration and innovation.
- Apply change management strategies and interprofessional decisionmaking skills to optimize individual and organizational outcomes.
- Utilize best scientific evidence in organizational theory, human resource management, health care policy, and information technology to improve health care quality and patient safety.
- Commit to innovative and ethical leadership incorporating respect, integrity, and life-long learning.
- Analyze the relationship between health care policy and health care delivery to improve health outcomes in patients, populations and systems.
- Relate knowledge of the physical and organizational environment to appropriate health care leadership and management strategies.
- Utilize financial analytical skills to critique financial flow in health care, evaluate fiscal health and assess risks and opportunities for maximizing organizational strategy.
- Design, implement, lead and evaluate a meaningful quality improvement project with an interprofessional team to improve health care processes and outcomes for individuals, populations and systems.
- Apply knowledge of social, political, cultural and health inequities to health care leadership.

## **Additional Information**

### **Program Core Faculty**

• Find a program faculty list (https://healthleadership.ucsf.edu/faculty/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on master's programs (https://graduate.ucsf.edu/ms-hail-statistics/) on the Graduate Division website.

## **Degree Requirements**

- 12 courses (3 units each = 36 units)
- Three on-campus sessions, including a one-day new cohort orientation
- · Administration practicum
- · Capstone project
- · Comprehensive examination

### **Core Courses**

Course Title Units

HLTH ADMIN 200A Advanced Scholarship in He

Advanced Scholarship in Health Systems Research 1

	Total Units	36
	Units	9
HLTH ADMIN 207B	Leadership in Action: Inquiry to Innovation <sup>3</sup>	3
HLTH ADMIN 206	Strategic Management of Human Resources	3
HLTH ADMIN 201	Leadership: Forces of Change	3
Quarter 4		
	Units	9
HLTH ADMIN 402	Administrative Practicum (Fall/Spring) <sup>2</sup>	3
	Dynamics	
HLTH ADMIN 205	Healthcare Quality, Safety and Interprofessional	3
HLTH ADMIN 203	Leadership: Healthcare Policy	3
Quarter 3		
	Units	9
HLTH ADMIN 401	Administrative Practicum (Winter/Summer) <sup>2</sup>	3
HLTH ADMIN 204	Healthcare Economics, Policy, and Decision-making	3
HLTH ADMIN 202	Leadership: Environmental Systems	3
Quarter 2		
	Units	9
	Performance (includes a 2-day on-campus intensive) 1	
HLTH ADMIN 207A	Essential Leadership: Foundations for Effective	3
HLTH ADMIN 200B	Healthcare Finance and Economics <sup>1</sup>	3
	1	

- HLTH ADMIN 200A Advanced Scholarship in Health Systems Research, HLTH ADMIN 200B Healthcare Finance and Economics and HLTH ADMIN 207A Essential Leadership: Foundations for Effective Performance must be completed successfully prior to enrolling in other program courses.
- Course activities occur online and at your healthcare organization
   Includes a 1-day on-campus intensive, must be completed during final quarter

Code	Title	Units
HLTH ADMIN 200A	Advanced Scholarship in Health Systems Research	3
HLTH ADMIN 200B	Healthcare Finance and Economics	3
HLTH ADMIN 201	Leadership: Forces of Change	3
HLTH ADMIN 202	Leadership: Environmental Systems	3
HLTH ADMIN 203	Leadership: Healthcare Policy	3
HLTH ADMIN 204	Healthcare Economics, Policy, and Decision-making	3
HLTH ADMIN 205	Healthcare Quality, Safety and Interprofessional Dynamics	3
HLTH ADMIN 206	Strategic Management of Human Resources	3
HLTH ADMIN 207A	Essential Leadership: Foundations for Effective Performance	3
HLTH ADMIN 207B	Leadership in Action: Inquiry to Innovation	3
HLTH ADMIN 401	Administrative Practicum	3
HLTH ADMIN 402	Administrative Practicum	3

# **Non-course Core Requirements Capstone Project**

The capstone project is a central component of the MS-HAIL program. Working with MS-HAIL faculty and a worksite mentor, students will work with an interprofessional team to implement and evaluate an evidence-based, quality improvement project.

### **Comprehensive Examination**

Successful completion of the comprehensive examination process fulfills a Graduate Division requirement for conferral of the Master of Science degree.

As part of the HLTH ADMIN 207B Leadership in Action: Inquiry to Innovation course and based on the Capstone Project, the student will complete three components that make up the comprehensive examination:

- a. two scholarly papers (literature review and evidence-based practice capstone project),
- b. an academic poster, and
- c. a podium presentation.

Each component will demonstrate the student's ability to apply advanced knowledge in a select area of inquiry; synthesize, critique, and apply relevant empirical evidence and theory; analyze resulting data; discuss implications for healthcare and/or practice, and disseminate findings. A passing grade is required for each component of the comprehensive examination.

## **Health Data Science (Certificate)**

Visit program website. (https://epibiostat.ucsf.edu/certificate-health-data-science/)

**Degree Offered:** Certificate **Program Leadership:** 

John Kornak, PhD, Program Director

**Admissions Inquiries:** 

Eva Wong-Moy, Graduate Affairs Manager

## **Program Description**

The Certificate in Health Data Science (CiHDaS) is one-year program, ideal for those already working in the biomedical or pharmaceutical industries, focused on applying data science, biostatistics, machine learning, and epidemiological thinking in clinical research settings.

The CiHDaS program is intended for.

- Quantitative science learners interested in studying data science with a focus on biomedical applications.
- Numerically able biomedical scientists interested in applying data science methods in clinical, epidemiological and biological sciences.

Data science and biostatistical tools are increasingly necessary to accommodate the growing emphasis on precision and evidence based-medicine, the widespread analyses of electronic health records, and the improved capabilities to collect and store massive datasets.

We also offer a Master's of Science in Health Data Science (MiHDaS) (https://epibiostat.ucsf.edu/masters-degree-health-data-science/) as a two-year program that includes a capstone research project, teaching and industry experience.

## **Admission Requirements**

- Bachelor's degree (BA/BS) or the equivalent from an accredited institution in a quantitative or biomedical science, or related field, with a minimum grade point average of 3.0.
- International applicants from non-English speaking countries must also demonstrate proficiency in English by:
- Completing one year of full-time study with a minimum GPA of 3.2 (B average) on a 4.0 scale at an accredited college or university in the United States, or
- Earning a degree from a college or university outside of the United States with instruction fully in English, or
- Obtaining the minimum scores on the Test of English as a Foreign Language (TOEFL) - administered by ETS (http://www.ets.org/toefl/), or the International English Language Testing System (IELTS). Please see the Graduate Division's International Admission Requirements (https://graduate.ucsf.edu/intl-admission-requirements/) for minimum scores; note that the Health Data Science program minimum internet based TOEFL iBT score is 100. Test scores are valid from these institutions for a maximum of two years from the test date. TOEFL official scores must be sent to UCSF's institutional code 4840; for IELTS scores, select University of California, San Francisco-Graduate Division.
- International students who have completed degrees in countries where English is the native language are exempt from the testing requirement.
- · Three letters of recommendation

- · Resume or curriculum vitae
- · Statement of Purpose
- · Personal History Statement

## **Learning Outcomes**

To complete the program, scholars must satisfy program objectives, which are to:

- Learn a broad set of data science research methods and the techniques needed for the application of data science across biomedicine applications and research.
- Gain understanding of key issues that are particularly pertinent to the health sciences and evidence-based medicine, such as bias, confounding, interpretability, and causality.
- Plan and implement one or more health-related data science analysis projects.
- · Analyze, interpret, and present data science research results.

## **Degree Requirements**

- All core courses and required activities taken and passed with a grade C or higher.
- Maintain a cumulative GPA of 3.0 or higher (equivalent to a B average).

### **Core Courses**

Course	Title	Units
Summer		
BIOSTAT 202	Opportunities and challenges of complex biomedical data	3
BIOSTAT 213	Programming for Health Data Science in R	2
EPIDEMIOL 201	Responsible Conduct of Research	0.5
	Units	5.5
Fall		
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
BIOSTAT 214	Programming for Health Data Science in R II	3
EPIDEMIOL 203	Epidemiologic Methods	4
DATASCI 220	Data Science Program Seminar I	1
	Units	11
Winter		
BIOSTAT 208	Biostatistical Methods II	3
BIOSTAT 216	Machine Learning in R for the Biomedical Sciences	3
DATASCI 220	Data Science Program Seminar I	1
DATASCI 223	Applied Data Science with Python	2
	Units	9
Spring		
BIOSTAT 209	Biostatistical Methods III	3
DATASCI 220	Data Science Program Seminar I	1
DATASCI 224	Understanding Machine Learning: From Theory to Applications	3
DATASCI ELECTIVE *		2
	Units	9
	Total Units	34.5

\* Elective may be taken in any quarter.

## **Health Data Science (MS)**

Visit program website. (https://epibiostat.ucsf.edu/masters-degree-health-data-science/)

**Degree Offered:** MS **Program Leadership:** 

John Kornak, PhD, Program Director

**Admissions Inquiries:** 

Eva Wong-Moy, Graduate Affairs Manager

## **Program Description**

Data science plays a fundamental role in health sciences research: Learning from data is at the core of how we make advances in health research. Data science methods and tools are needed to deal with the expanding role of precision medicine, the widespread analyses of electronic health records, and the growing number of large and complex datasets

The Master of Science (MS) Degree in Health Data Science (MiHDaS) is a two-year program in which students learn to apply data science, biostatistics, machine learning, and epidemiological thinking in clinical research settings.

The program is intended for.

- Quantitative science learners interested in studying data science with a focus on biomedical applications.
- Numerically able biomedical scientists interested in applying data science methods in clinical, epidemiological and biological sciences.

We also offer a one-year certificate program (CiHDaS) (https://epibiostat.ucsf.edu/certificate-health-data-science/), with condensed coursework and absent teaching and hands on capstone project experience, best suited for those already working in the biomedical or pharmaceutical industries.

## **Admission Requirements**

- Bachelor's degree (BA/BS) or the equivalent from an accredited institution in a quantitative or biomedical science, or related field, with a minimum grade point average of 3.0.
- International applicants from non-English speaking countries must also demonstrate proficiency in English by:
- Completing one year of full-time study with a minimum GPA of 3.2 (B average) on a 4.0 scale at an accredited college or university in the United States, or
- Earning a degree from a college or university outside of the United States with instruction fully in English, or
- Obtaining the minimum scores on the Test of English as a Foreign
  Language (TOEFL) administered by ETS (http://www.ets.org/toefl/),
  or the International English Language Testing System (IELTS (http://
  www.ielts.org/)). Please see the Graduate Division's International
  Admission Requirements (https://graduate.ucsf.edu/intl-admissionrequirements/) for minimum scores; note that the Health Data
  Science program minimum internet based TOEFL iBT score is 100.
  Test scores are valid from these institutions for a maximum of two
  years from the test date. TOEFL official scores must be sent to
  UCSF's institutional code 4840; for IELTS scores, select University of
  California, San Francisco Graduate Division.

- International students who have completed degrees in countries where English is the native language are exempt from the testing requirement.
- · Three letters of recommendation
- · Resume or curriculum vitae
- · Statement of Purpose
- · Personal History Statement

## **Learning Outcomes**

To complete the program, scholars must satisfy program objectives, which are to:

- Acquire a mastery of a broad set of data science research methods and in the techniques needed for the application of data science across biomedicine applications and research.
- Gain understanding of key issues that are particularly pertinent to the health sciences and evidence-based medicine, such as bias, confounding, interpretability, and causality.
- Plan and implement one or more health-related data science research projects.
- Write a publication-quality first-author research paper and a detailed methodology review.
- · Present research results at a national or international meeting.
- · Create a portfolio of data science skills and application areas.

## **Degree Requirements**

- All core courses and required activities taken and passed with a grade C or higher.
- Maintain a cumulative GPA of 3.0 or higher (equivalent to a B average).
- · Capstone project
- · Educational apprenticeship (teaching assistant for one course)
- · Unit requirement: 36 units

### **Core Courses**

Course	Title	Units
Year 1		
Summer		
BIOSTAT 202	Opportunities and challenges of complex biomedical data	3
BIOSTAT 213	Programming for Health Data Science in R	2
EPIDEMIOL 201	Responsible Conduct of Research	0.5
	Units	5.5
Fall		
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
BIOSTAT 214	Programming for Health Data Science in R II	3
EPIDEMIOL 203	Epidemiologic Methods	4
DATASCI 220	Data Science Program Seminar I	1
	Units	11
Winter		
BIOSTAT 208	Biostatistical Methods II	3
BIOSTAT 216	Machine Learning in R for the Biomedical Sciences	3
DATASCI 220	Data Science Program Seminar I	1
DATASCI 223	Applied Data Science with Python	2
	Units	9
Spring		
BIOSTAT 209	Biostatistical Methods III	3
DATASCI 220	Data Science Program Seminar I	1

DATASCI 224	Understanding Machine Learning: From Theory to Applications	3
DATASCI ELECTIVE 2		2
	Units	9
Year 2		
Fall		
DATASCI 221	Data Science Program Seminar II	1
DATASCI 222	Data Science Capstone Project	8
DATASCI 300	Data Science Educational Practice <sup>1</sup>	1
	Units	10
Winter		
DATASCI 221	Data Science Program Seminar II	1
DATASCI 222	Data Science Capstone Project	8
	Units	9
Spring		
DATASCI 221	Data Science Program Seminar II	1
DATASCI 222	Data Science Capstone Project	8
	Units	9
	Total Units	62.5

<sup>&</sup>lt;sup>1</sup> Educational Practice – may be any quarter through 2nd year.

### **Additional Information**

### **Capstone Project**

Students will begin developing a longitudinal capstone project as part of their requirements for the MiHDaS degree. Identification of the project will be encouraged in the first part of the program with the help of their UCSF faculty mentors (i.e. the members of their Graduate Committee), one of whom will be the Graduate Committee chair, one from the data science/biostatistics/bioinformatics faculty and one a clinical faculty member within UCSF.

The required capstone project encompasses four components:

- Submission of a first-authored publication in a scientific journal that is data science, general science or medical applications-based (this does not need to be accepted, but does need to be approved by the student's Graduate Committee);
- b. Giving an oral or poster presentation at a scientific conference;
- c. Writing a report on the background methodology and technical issues that were adopted or considered for the submitted publication. This report is expected to provide more detail to demonstrate solid understanding by the student of the technical methods used including full literature review with respect to the history of methods development; and
- d. Compiling a code and analysis portfolio for marketing the student's career skills.

These components were chosen to emphasize the crucial skills necessary to be a successful data scientist that go above and beyond purely technical skills. This includes but is not limited to:

- · Carefully describing methodology used in a written format,
- · Presenting work orally, and
- Conveying the importance of one's work in peer-reviewed publications and elsewhere.

This capstone element effectively provides students with an "apprenticeship" of sorts in the field of Data Science for the Health Sciences. By producing a submitted scientific paper approved by their

committee, giving a presentation, and writing a methodological report, MiHDaS graduates will be able to clearly demonstrate that they are qualified to work in the field as part of a Health Sciences team.

### **Educational Apprenticeship**

Students in the program will be expected to act as an educational apprentice (EA) for one course during their second year. This experience typically involves leading a weekly small-group discussion section of 10 to 15 students, holding office hours for students and grading homework assignments and projects. This requirement is designed to provide students with a valuable teaching experience without having a significant impact on the time needed for their capstone project work. In all cases, students will have taken during their first year the courses that they are asked to EA. Students will enroll in DATASCI 300 Data Science Educational Practice to receive credit in the term they EA.

Acting as EAs provides students with important skills – while working under the guidance of experienced faculty – that they can subsequently transfer into the workplace. Even if they are not working in academia, the ability to explain concepts and interpret results for other members of the team are critical skills for a data scientist that they will acquire in their role as EA.

<sup>&</sup>lt;sup>2</sup> Elective may be taken in any quarter.

## **Health Policy and Law (MS)**

Visit program website. (https://www.uclawsf.edu/admissions/hpl/)

Degree Offered: MS Program Leadership:

Janet Coffman, PhD, MPP, MA, Program Co-Director (UCSF) Sarah Hooper, JD, Program Co-Director (UC Law SF)

Mallory Warner, JD, Associate Director (UC Law SF)

**Admissions Inquiries:** 

Mallory Warner, Associate Director

## **Program Description**

The joint UCSF/UC Law SF Master of Science in Health Policy and Law (HPL) is an online master's degree program intended for students who wish to obtain interdisciplinary training in the fields of health science, law, and policy. The 24 semester-unit degree includes 24 units of core required coursework. The core relies on curriculum drawn from both UCSF and UC Law SF. UCSF and UC Law SF will jointly confer the degree.

## **Admission Requirements**

### **Eligibility Requirements:**

- a. Applicants must have an introductory level understanding of the U.S. healthcare system, as evidenced by one or more of the following and documented in the applicant's resume, transcripts, CV or letters of recommendation:
  - i. Job, professional, volunteer, or other experience related to health care, health law, or health policy; or
  - Completion of an undergraduate-, graduate-level, or continuing education course that includes an introduction to the U.S. healthcare system.
- Ideal candidates will be well-organized, capable of working independently, and proactive in engaging with faculty and fellow students.
- If accepted, all candidates must ensure they have sufficient computer and internet access to complete the largely asynchronous online curriculum.

### **Application Requirements:**

- a. Completed HPL Application Form
- b. Completed Supplemental Materials:
  - i. Resume or curriculum vitae (CV)
  - ii. Official academic transcripts
  - iii. Statement of Purpose
  - iv. \$75 non-refundable application fee
  - v. Two letters of recommendation
  - vi. English Proficiency Exam (if applicable)

## **Learning Outcomes**

- Graduates will demonstrate practical understanding of social, political, economic, and legal dynamics of health policy in the United States.
- Graduates will use evidence-based reasoning to critically assess legal, policy, and social challenges facing U.S. health care, and articulate advantages and downsides of different approaches for addressing those problems.

- Graduates will demonstrate ability to communicate and collaborate with individuals of diverse disciplinary backgrounds to address health policy issues.
- d. Graduates will develop effective strategies for oral and written communication with diverse policy stakeholder groups.

### **Degree Requirements**

The HPL is a 24-unit online degree consisting of all required coursework. HPL students are required to propose and execute a capstone project as part of the degree program.

### **Core Courses**

All HPL courses are on the UC Law SF academic schedule. Learn more about HPL student course plans (https://www.uchastings.edu/admissions/hpl/hplprogram/courseplans/).

### **Full-Time Academic Track**

#### Fall

HPL 060: HPL Research and Writing (3)

HPL 062: How to Evaluate Policy-Relevant Research (2)

HPL 064: Intro to U.S. Health Policymaking Process (2)

HPL 066: U.S. Health Care System and the Law (4)

HPL 068: Capstone Proposal (1)

#### Spring

HPL 070: Health Economics (3)

HPL 072: Health Law: Institutions, Providers and Patients (4)

HPL 074: Health Care Leadership and Advocacy (2)

HPL 076: Capstone Execution (3)

## Part-Time Academic Track Fall

HPL 060: HPL Research and Writing (3)

HPL 066: U.S. Health Care System and the Law (4)

### **Spring**

HPL 070: Health Economics (3)

HPL 072: Health Law: Institutions, Providers and Patients (4)

#### Fall

HPL 062: How to Evaluate Policy-Relevant Research (2)

HPL 066: Intro to U.S. Health Policymaking Process (2)

HPL 068: Capstone Proposal (1)

### **Spring**

HPL 074: Health Care Leadership and Advocacy (2)

HPL 076: Capstone Execution (3)

## **History of Health Sciences (MA)**

Visit program website. (https://graduate.ucsf.edu/history-ma/)

Degree Offered: MA Program Leadership

Dorothy Porter, PhD, Program Director

**Admissions Inquiries:** 

Bonita Dyess, Program Manager

## **Program Description**

The History of Health Sciences (HHS) program trains students to examine the history of health sciences – medicine, nursing, pharmacy, public health, alternative healing, and biomedical research – from a variety of critical approaches. With an emphasis on modern (late 19th to 21st century) contexts, the program's faculty and students investigate how medicine, health, and illness are historically perceived, and how these perceptions reflect and shape culture and society.

The Master's program is a two-year degree that is composed of two years of coursework and either a Master's thesis or a Qualifying Exam for graduation. Students learn to make use of all aspects of historical research: identifying appropriate sources, evaluating and interpreting the content of published and unpublished documents, contextualizing and analyzing those documents within the broader framework of contemporary knowledge, society, and culture, and writing a thesis that provides both historical narrative and interpretive analysis of their topic.

Students are admitted to the History of Health Sciences program biennially, in odd-numbered years. This keeps the student-to-faculty ratio very low, enabling students to work closely with their faculty mentors.

### **Faculty**

There are four core faculty and three faculty members with other academic appointments in the HHS program; and 27 other affiliated faculty.

#### Research Focus Areas

- · Public health
- · Healthcare systems
- Pharmaceuticals
- Race
- Gender
- Biomedicine

The History of Health Sciences program office at UCSF is located at the Mission Bay campus. Visit the program website (https://graduate.ucsf.edu/history-ma/) for more information.

The History of Health Sciences program is offered by the UCSF Graduate Division. The program is administered by the UCSF School of Medicine (SOM), and courses are delivered by faculty members in SOM.

## **Admission Requirements**

BA in History or a related field or a BS in the sciences

## **Learning Outcomes**

 Articulate the dynamic interrelationship between medicine and society through history.

- Demonstrate how to formulate an original argument both in an extended written thesis and in oral form drawing on basic critical skills and the historical record itself.
- · Promote a historically informed understanding of the health sciences.

### **Additional Information**

### **Program Faculty**

 Find a program faculty list (https://humsci.ucsf.edu/faculty/) on the program website.

## **Degree Requirements**

- Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Pass comprehensive examination or completion and submission of a master's thesis
- For additional details, please see: https://graduate.ucsf.edu/masters-degree (https://graduate.ucsf.edu/masters-degree/).

### **Core Courses**

	Total Units	18-23
	Units	11-12
HIST HL SC 230	Qualifying Exam Research	2
HIST HL SC 250	The Anatomy of an Archive	4-5
HIST HL SC 205	The Science of A Historical Archive	4
HIST HL SC 204B	Research Methods in the History of Health Sciences	1
Year 2		
	Units	7-11
HIST HL SC 204A	Research Methods in the History of Health Sciences	3
HIST HL SC 200B	Introduction to History of Health Sciences	2-4
HIST HL SC 200A	Introduction to the History of Health Sciences	2-4
Year 1		
Course	Title	Units

4

2

## **History of Health Sciences (PhD)**

Visit program website. (https://graduate.ucsf.edu/history/)

**Degree Offered**: PhD **Program Leadership**:

Dorothy Porter, PhD, Program Director

**Admissions Inquiries:** 

Bonita Dyess, Program Manager

We are not accepting applications for the History of Health Sciences PhD program and currently have no projection as to when we will open admissions again.

Note that we continue to invite applications for the MA in History of Health Sciences (https://catalog.ucsf.edu/programs/history-health-sciences-ma/).

## **Program Description**

The History of Health Sciences (HHS) program trains students to examine the history of health sciences – medicine, nursing, pharmacy, public health, alternative healing, and biomedical research – from a variety of critical approaches. With an emphasis on modern (late 19th to 21st century) contexts, the program's faculty and students investigate how medicine, health, and illness are historically perceived, and how these perceptions reflect and shape culture and society.

The PhD program is a five-year degree that is composed of two years of coursework and a three-year dissertation project. Students learn to make use of all aspects of historical research: identifying appropriate sources, evaluating and interpreting the content of published and unpublished documents, contextualizing and analyzing those documents within the broader framework of contemporary knowledge, society, and culture, and writing a thesis that provides both historical narrative and interpretive analysis of the dissertation topic.

Students are admitted to the History of Health Sciences program biennially, in odd-numbered years. This keeps the student-to-faculty ratio very low, enabling students to work closely with their faculty mentors.

Note that the Graduate Division also offers a master's degree program (p. 92) in HHS.

### **Faculty**

There are four core faculty and three faculty members with other academic appointments in the HHS program; and 27 other affiliated faculty.

#### **Research Focus Areas**

- · Public health
- · Healthcare systems
- · Pharmaceuticals
- Race
- Gender
- Biomedicine

The History of Health Sciences program office at UCSF is located at the Mission Bay campus. Visit the program website (https://graduate.ucsf.edu/history/) for more information.

The History of Health Sciences program is offered by the UCSF Graduate Division. The program is administered by the UCSF School of Medicine (SOM), and courses are delivered by faculty members in SOM.

### **Admission Requirements**

B.A in History or a related field or a B.S. in the sciences

## **Learning Outcomes**

- Articulate the dynamic interrelationship between medicine and society through history.
- Demonstrate how to formulate an original argument both in an extended written thesis and in oral form drawing on basic critical skills and the historical record itself.
- · Promote a historically informed understanding of the health sciences.

### **Additional Information**

### **Program Core Faculty**

 Find a program faculty list (https://humsci.ucsf.edu/faculty/) on the program website.

#### **Career Outcomes**

 Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

## **Degree Requirements**

- · Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

### **Core Courses**

HIST HL SC 213

HIST HL SC 215

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Course	Title	Units
Year 1		
HIST HL SC 200A	Introduction to the History of Health Sciences <sup>1</sup>	2-4
HIST HL SC 200B	Introduction to History of Health Sciences	3
HIST HL SC 204A	Research Methods in the History of Health Sciences	3
	Units	8-10
Year 2		
HIST HL SC 204B	Research Methods in the History of Health Sciences	1
HIST HL SC 205	The Science of A Historical Archive	4
HIST HL SC 250	The Anatomy of an Archive	4-5
	Units	9-10
Year 3 and Beyond		
Including core courses and	possible electives	
HIST HL SC 201A	Disease and the Social Order from Black Death to	2-4

Disability History

Crafting the Dissertation Prospectus

	Total Units	28-36
	Units	11-16
HIST HL SC 299	Dissertation	0
HIST HL SC 297	Special Study	1-4
HIST HL SC 230	Qualifying Exam Research	2

## **Non-course Core Requirements**

Dissertation presentation

## **International Dentist Pathway (DDS)**

Visit program website. (https://dentistry.ucsf.edu/)

Degree Offered: Doctor of Dental Surgery

#### Program Leadership:

Michael S. Reddy, DMD, DMSc Dean, UCSF School of Dentistry Associate Vice Chancellor, Oral Health Affairs

Jennifer Perkins, DDS, MD Assistant Dean of Education, School of Dentistry Executive Director of Clinical Education, School of Dentistry Associate Professor, Oral and Maxillofacial Surgery

Lloyd R. Harris, DDS Program Director, UCSF International Dentist Pathway Associate Clinical Professor, PRDS

Jack Gormley, Ed.D. Assistant Dean for Learner Success and Belonging, School of Dentistry

#### **Admissions Inquiries:**

Daliah Williams, Manager of Admissions Operations and Data

## **Program Description**

The University of California, San Francisco (UCSF) School of Dentistry provides a unique balance of clinical excellence, research opportunities and community service as part of one of the leading health science centers in the nation. Since its founding in 1881, the School of Dentistry has evolved from the lone outpost of dental education west of the Mississippi into an international leader in the education of oral health care practitioners and scholars, comprehensive dental care and breakthrough research. The school has a tradition of service, strong clinical programs that prepare dentists for the future, and research activities at the vanguard of contemporary science.

We are looking for candidates who share the school's educational objectives and enthusiasm for our robust curriculum. We look for evidence of past achievements and outstanding personal qualities as well as interest in contributing to the advancement of knowledge and service to health care through dental professions.

We seek learners who will return to their communities with the clinical, intellectual, and interpersonal skills expected of a health professional. Our graduates should possess the enhanced sensitivities, broad understanding, open-minded attitudes, and appreciation of cultural diversity to ensure equitable distribution of high-quality dental health care to all members of our society. Further, we seek people who have the discipline to apply themselves, the desire to use their talents and abilities to the full, and the willingness to undertake leadership roles in academia, in dentistry, and beyond.

For Academic Year 2024-2025, we are admitting 20 students to a three-year International Dentist Pathway program. The IDP learner experience is integrated with the DDS curriculum and comprehensive clinical programs. (We no longer offer a two-year International Dentist Pathway program.)

#### Curriculum

UCSF and the School of Dentistry attach importance to creating a culture and environment that promotes student engagement and offers all students an opportunity to be involved in its quality systems. The school

is committed to working in partnership with its students in order to enhance all aspects of the student experience. Accordingly, our courses (as listed on the other tabs) and curriculum are subject to continuous quality improvement and may change in response to feedback and learner needs.

We believe all UCSF dental graduates deserve mastery in procedural and clinical skills coupled with laser-focused critical thinking to prepare them for the next steps in their career, whether clinical practice, research, academia, public sector, or some combination. Students, faculty and staff work as a team to provide scientifically based patient-centered care. We are proud to develop clinicians who graduate as competent dentists, and as scientists.

## **Admission Requirements**

The UCSF School of Dentistry Admissions Committee takes a holistic approach to the admissions process. We consider all aspects of the application, including academic background, motivation for a dental career, and potential for future success in the program and dentistry as indicated by past achievements and present commitments. To be considered for admission, you must present evidence that you have completed a dental degree from a foreign institution and strongly recommend passing the National Board Dental Exams Parts 1 and 2 or the Integrated National Board Dental Exam (optional).

### **Applications**

UCSF School of Dentistry International Dentist Pathway applications are processed through the American Dental Education Association - Centralized Application for Advanced Placement for International Dentists (ADEA CAAPID). The application can be submitted starting March 9 and must be electronically submitted no later than 11:59 p.m. EST on June 17. We advise you to begin your ADEA CAAPID application early to allow yourself sufficient time to complete it by the deadline. Late applications will not be considered.

### **Supplemental Questions**

The UCSF supplemental questions are in the UCSF school section of the ADEA CAAPID application.

### **Transcripts and Evaluations**

Submit an official ECE or WES course-by-course evaluation of all international coursework and upload a copy of your international transcripts (dental school and all other college/university level course work) via the ADEA CAAPID application. If you cannot have an official ECE or WES evaluation sent to ADEA CAAPID and you have a copy, please scan and upload to the ADEA CAAPID application.

Please note: If selected for an interview, applicants will be required to submit an official transcript from all international institutions. These documents will be required prior to the interview date. Official transcripts must be sent directly to UCSF from the issuing institution(s). Notarized copies are not acceptable.

### **National Board Exams and TOEFL**

Passing the Part 1 and Part 2 of the National Board Dental Examination or the Integrated National Board Dental Examination is optional but strongly recommended. Submit official scores via ADEA CAAPID application.

Test of English as a Foreign Language (TOEFL) scores within two years of the opening of the application cycle: Minimum TOEFL score is 95 or

higher on the internet-based test (iBT). We accept the home based TOEFL exam scores.

#### **Letters of Recommendation**

Please submit three letters of recommendation via the ADEA CAAPID application: one from a clinician who has supervised your work; one from an academic from your home institution within 5 years of your graduation (if unable to obtain, you can submit two professional letters of recommendation); and one letter of your choosing. If your recommender is unable to obtain letterhead, we require them to upload the letter directly to ADEA CAAPID and it must include their electronic signature and their complete contact information.

### **UCSF** Fee

To have your application processed, please submit the non-refundable UCSF application processing fee of \$200 (USD) at our Online Payment System. Checks will not be accepted.

### **Clinical Experience**

Clinical experience is not required but suggested.

All required application materials must be received by ADEA CAAPID no later than June 17, 11:59 p.m. EST.

### **Helpful Links**

- UCSF School of Dentistry Admissions Policies (https://dentistry.ucsf.edu/programs/dds/admissions/admissions-policies/)
- UCSF School of Dentistry International Dentist Pathway Admissions Website (https://dentistry.ucsf.edu/programs/dds/admissions/ admissions-policies/)

## **Learning Outcomes**

The School of Dentistry has 12 competency statements that a student dental graduate must demonstrate. Two are UCSF campus wide statements and 10 are School of Dentistry (dental professional) specific. They are listed on the SOD Competency Standards page (https://wiki.library.ucsf.edu/display/SODEducation/Competency+Standards/) and SOD website (https://dentistry.ucsf.edu/students/education/competency-standards/).

These statements represent broad levels of academic and clinical achievement, measured by specific faculty evaluations and written and clinical examinations at various times during the academic program. These fundamental competencies prepare the graduate for lifelong learning and success with achieving licensure, and the safe practice of general dentistry.

The School of Dentistry defines a general dentist graduate as: "An oral health care provider who can evaluate, diagnose, prevent, and treat diseases and conditions of the oral cavity. A UCSF School of Dentistry graduate is a novice provider who is able to provide safe and effective treatment to the extent of their training and has the judgment to know when to refer for more complex treatment."

As part of the program, students are required to challenge a number of individual, high-stakes competency examinations. Competency is a complex behavior or ability essential for the general dentist to begin independent and unsupervised dental practice. Competency includes knowledge, experience, critical thinking, problem-solving, professionalism, ethical values and procedural skills. These components of competency become an integrated whole during the delivery of patient care.

### **Additional Information**

### **Program Core Faculty**

Find a program faculty list (https://dentistry.ucsf.edu/programs/dds/faculty/) on the program website.

### **Degree Requirements**

The UCSF School of Dentistry pre-doctoral curriculum for foreign trained dentists is offered in a three-year International Dentist Pathway (IDP), covering the broad range of science, art and technology in contemporary dental practice. We believe all UCSF dental graduates deserve mastery in procedural and clinical skills coupled with laser-focused critical thinking to prepare them for the next steps in their career, whether clinical practice, research, academia, public sector, or some combination. Students, faculty and staff work as a team to provide scientifically based patient-centered care. We are proud to develop clinicians who graduate as competent dentists, and as men and women of science.

UCSF School of Dentistry Competency Standards (https://wiki.library.ucsf.edu/display/SODEducation/Competency+Standards/)

The faculty will recommend the awarding of degrees in accordance with Academic Senate regulations for the Doctor of Dental Surgery. Candidates for the degree Doctor of Dental Surgery are required to:

- a. Complete and pass all core courses in the dental curriculum with grades of P or H. With the approval of the faculty of the School of Dentistry, part of this work may be taken in some other school or college of the University or in another institution of equivalent standing.
- b. Complete and pass all clinical requirements
- Satisfy required standards of professionalism of the School of Dentistry.

### **Core Courses**

Course	Title	Units
Year 1		
Summer		
DENTALSCI 129	Introduction to Dentistry	2.5
DENTALSCI 127	Orofacial Pain: Foundations for Diagnosis and Treatment	2
PRV RS DEN 126	Removable Partial Dentures, Crown & Bridge, & Operative	6
PRV RS DEN 104	Introductory Biomaterials Science	2
	Units	12.5
Fall		
DENTALSCI 125	Fundamentals of Risk Assessment, Therapy, and Prevention I	2
PRV RS DEN 127	Complete Dentures, Endodontics, & Adv Restorative Technique	5.5
BIOMED SCI 127	Oral Pathology	2
SCIMETHODS 117	Foundations of Scientific Inquiry	2
	Units	11.5
Winter		
DENTALSCI 126	Fundamentals of Risk Assessment, Therapy, and Prevention II	2
PRV RS DEN 128	Complete Dentures, Fixed Partial Dentures & Endodontics	10.5
PT CN CARE 129	Introduction to Comprehensive Care IV (Longitudinal course, also taken in summer and fall for 0 units.)	16.5
	Units	29

Spring		
DENTALSCI 128	Oral Physiology, Orofacial Pain, and TMD	4
PT CN CARE 128	Introduction to Comprehensive Adult Dentistry	7.5
PRV RS DEN 129	Implant and Pediatric Dentistry	1
PT CN CARE 112	Principles of Interprofessional Practice II	0.5
	(Longitudinal course, also taken in summer, fall and	
	winter for 0 units.)	
Year 2	Units	13
Summer		
PT CN CARE 102A	Clinical Fixed Prosthodontics and Implants I	1
PT CN CARE 104A	Management &Treatment of Periodontal Diseases I	1
PT CN CARE 106AD	Clinical Oral Medicine Rotation	1.5
PT CN CARE 107A	Clinical Endodontics I	0.5
PT CN CARE 108A	Clinical Removable Prosthodontics I	0.5
PT CN CARE 109A	Clinical Oral Surgery Rotation I	2.5
PT CN CARE 131	Foundations in General Dentistry I	4.5
PT CN CARE 139A	Comprehensive Adult General Dentistry I	5.5
	Units	17
Fall		
PT CN CARE 102A	Clinical Fixed Prosthodontics and Implants I	1
PT CN CARE 104A	Management &Treatment of Periodontal Diseases I	1
PT CN CARE 106AD	Clinical Oral Medicine Rotation	1.5
PT CN CARE 107A	Clinical Endodontics I	0.5
PT CN CARE 108A	Clinical Removable Prosthodontics I	0.5
PT CN CARE 109A	Clinical Oral Surgery Rotation I	2.5
PT CN CARE 132	Foundations in General Dentistry II	4.5
PT CN CARE 139A	Comprehensive Adult General Dentistry I  Units	5.5
Winter	Onits	17
PT CN CARE 102A	Clinical Fixed Prosthodontics and Implants I	1
PT CN CARE 104A	Management &Treatment of Periodontal Diseases I	1
PT CN CARE 106AD	Clinical Oral Medicine Rotation	1.5
PT CN CARE 107A	Clinical Endodontics I	0.5
PT CN CARE 108A	Clinical Removable Prosthodontics I	0.5
PT CN CARE 109A	Clinical Oral Surgery Rotation I	2.5
PT CN CARE 133	Foundations in General Dentistry III	4.5
PT CN CARE 130WI	Winter Community-Based Learning Lectures	0.5
PT CN CARE 139A	Comprehensive Adult General Dentistry I	5.5
	Units	17.5
Spring		
PT CN CARE 102A	Clinical Fixed Prosthodontics and Implants I	1
PT CN CARE 104A	Management & Treatment of Periodontal Diseases I	1
PT CN CARE 106AD PT CN CARE 107A	Clinical Oral Medicine Rotation Clinical Endodontics I	1.5 0.5
PT CN CARE 107A PT CN CARE 108A	Clinical Endodontics I  Clinical Removable Prosthodontics I	0.5
PT CN CARE 109A	Clinical Oral Surgery Rotation I	2.5
PT CN CARE 112	Principles of Interprofessional Practice II	0.5
1 1 011 07 1112 1 1 2	(Longitudinal course, also taken in summer, fall and	0.0
	winter for 0 units.)	
PT CN CARE 134	Foundations in General Dentistry IV	4.5
PT CN CARE 130SP	Spring Community-Based Learning Lectures	0.5
PT CN CARE 139A	Comprehensive Adult General Dentistry I	5.5
	Units	18
Year 3		
Summer	Community Olinian Fytamakin Causes	0
PT CN CARE 101C PT CN CARE 102CD	Community Clinics Externship Course Clinical Fixed Prosthondontics and Implants II	8
PT CN CARE 102CD PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
I TON OANE TOHOU	II	0.5
PT CN CARE 105CD	Clinical Pediatric Dentistry Rotation II	2
PT CN CARE 107CD	Clinical Endodontics II	0.5

	Total Units	232
	Units	23
PT CN CARE 149C	QI Comprehensive Adult General Dentistry II	6.5
PT CN CARE 144	Adv Gen Dent IV: Integrated Clinical Case Pres & Cont	1
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1
PT CN CARE 107CD	II Clinical Endodontics II	0.5
PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
PT CN CARE 102CD	Clinical Fixed Prosthondontics and Implants II	1
PT CN CARE 101C	Community Clinics Externship Course	8
Spring	Units	23
PT CN CARE 149C	Comprehensive Adult General Dentistry II	6.5
PT CN CARE 143	Advanced General Dentistry III: Practice Mngmt & Acquisition	1
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1
PT CN CARE 107CD	Clinical Endodontics II	0.5
PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
PT CN CARE 102CD	Clinical Fixed Prosthondontics and Implants II	1
PT CN CARE 101C	Community Clinics Externship Course	8
Winter	Units	25.5
PT CN CARE 149C	Comprehensive Adult General Dentistry II	6.5
PT CN CARE 142	Advanced General Dentistry II: The Business of Dentistry	1.5
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1
PT CN CARE 107CD	Clinical Endodontics II	0.5
PT CN CARE 105CD	Clinical Pediatric Dentistry Rotation II	2
PT CN CARE 104CD	Management and Treatment of Periodontal Diseases	0.5
PT CN CARE 102CD	Clinical Fixed Prosthondontics and Implants II	1
Fall PT CN CARE 101C	Community Clinics Externship Course	8
	Units	25
PT CN CARE 149C	Comprehensive Adult General Dentistry II	6.5
PT CN CARE 141	Advanced General Dentistry I: 21st Century Clinical Topics	1
PT CN CARE 109CD	Clinical Oral Surgery Rotation II	4.5
PT CN CARE 108CD	Clinical Removable Prosthodontics II	1

## **Non-course Core Requirements**

### **Technical Standards**

In order to successfully complete the DDS degree, participate in all necessary aspects of dental training, and meet licensing requirements, a student must possess a minimum of certain essential physical and cognitive and emotional abilities. The standards are:

- Observation
- Communication
- Motor function
- · Behavioral and social attributes
- · Ethical and Legal Standards

Find complete description of the technical standards requirement (https://dentistry.ucsf.edu/programs/dds/admissions/technical-

standards/). All students will be asked to certify that they meet the minimum technical standards to pursue dental education.

## Interprofessional Health Post-Baccalaureate Certificate Program in Dentistry

Visit program website. (https://dentistry.ucsf.edu/programs/post-bac/)

**Degree Offered:** Certificate **Program Leadership:** 

Brennan Crilly, Director, Office of Admissions and Outreach Julia Hwang, Director, Learner Success Center

**Admissions Inquiries:** 

Brennan Crilly, Director, Office of Admissions and Outreach

## **Program Description**

The Interprofessional Health Post-Baccalaureate Certificate program represents a comprehensive educational opportunity designed for individuals from disadvantaged backgrounds, underserved communities, or from groups traditionally underrepresented in the health professions. Through a combination of advanced science coursework, test preparation, collaborative study, and personalized support in preparing for the professional school application process, participants are able to distinguish themselves as competitive candidates for health professional schools.

Since 1999, post-baccalaureate students in the UCSF schools of dentistry and medicine have been successful in gaining admission to health professions schools throughout the United States. Both programs have consistently seen high acceptance rates: the medical program has an established acceptance rate of 93% and the dental program has a similarly successful acceptance rate of over 90%. In 2010, the School of Pharmacy launched a program modeled after those in the schools of dentistry and medicine, and in 2011 all three programs were united under the UCSF Interprofessional Health Post-Baccalaureate Certificate program.

Post-baccalaureate students complete coursework through UC Berkeley Extension and participate in seminars at UCSF to enrich their knowledge of the health professions and prepare them for the professional school application process. Students in all three programs benefit from personalized advising; students in medicine and dentistry also benefit from focused entrance exam preparation. As members of a formal university graduate certificate program, students participate in campus life and take advantage of student resources in areas of financial aid, health insurance, library services, learning assistance and more.

The Interprofessional Health Post-Baccalaureate Certificate program is offered by the UCSF Graduate Division and administered by the UCSF schools of dentistry, medicine, and pharmacy.

The dental program is an intensive, one-year academic experience intended to help individuals with bachelor's degrees become competitive applicants to dental and other professional education programs. The program is highly selective, and consists of rigorous academic and co-curricular requirements:

Students take full-time coursework at the University of California,
Berkeley (UCB) Extension. This includes two semesters of at least
18 units of upper division sciences courses. It is important to
understand that the Extension courses offered are academically
equivalent to the courses offered on the Berkeley campus at UCB and
approved by the academic senate.

- Students receive mentoring by UCSF faculty and UCSF dental students, as well as previous Post-Bac students.
- In the seminar portion of the program, a variety of workshops are
  presented that focus on study techniques and test-taking skills. There
  is also emphasis placed on communication and interviewing skills as
  well as essay preparation. The students are also exposed to a variety
  of topics meant to enhance their overall knowledge of the dental
  profession.
- · Students are provided DAT home-study material.
- Students participate in on-campus events meant to provide additional knowledge of dentistry, such as Clinical Research and Excellence Day, Impressions, Building Bridges and Day in Dentistry.
- Students are required to participate in an interprofessional Continuous Quality Improvement (CQI) project. Totaling eight months, students work with peers from the schools of medicine and pharmacy, as well as faculty preceptors, to investigate ways to improve patient care and systems flow within various departments on campus.

## **Admission Requirements**

- U.S. citizen or U.S. permanent resident of any race or ethnicity who
  has demonstrated a commitment to UCSF School of Dentistry's
  mission of enhancing diversity and inclusion in dentistry or a
  commitment to helping reduce the serious underrepresentation of
  African Americans, Hispanic Americans and Native Americans in both
  the dental field and our campus community.
- · You must have a bachelor's degree.
- Be considered disadvantaged, or be from/committed to helping underserved communities.<sup>1</sup>
- Completion of all of the prerequisites for dental school (https://dentistry.ucsf.edu/programs/dds/admissions/prerequisites/) as found on the DDS website.
- Have previously engaged in around 100 dental shadowing hours.
- Have previously taken the DAT (not required but preferred).
- A disadvantaged individual is one who, from an early age, resided in a low-income community or experienced enduring family, societal, or other hardship that significantly compromised educational opportunities. An underserved community is a geographic location or an identified population that is determined medically underserved based upon the U.S. Census data.

## **Learning Outcomes**

The content of the course has been developed to facilitate the success of the course's three learning objectives: Application Preparation (AP), Skill Development (SD), and Interprofessional Education (IE). By the end of the course students will:

 Demonstrate understanding of strategic Application Preparation (AP) through:

The ability to prepare written statements acceptable for submission to professional schools.

Knowledge of best practices for identifying letter of evaluation/ recommendation writers, soliciting writers, and providing appropriate information to the writers. Dental students will create appropriate list of schools to apply to through the use of research, oral presentation and sharing resources. Pharmacy students will create appropriate list of professional organizations through the use of research, oral presentation and sharing resources.

Knowledge of how to prepare for an applicant interview and practice interviewing.

b. Demonstrate Skill Development (SD) in areas critical for success in professional school such as:

Improved time management skills and academic strategies as demonstrated by an improvement in academic performance.

Improved written and oral communication skills as assessed through course assignments.

Demonstrated evidence of professionalism through their interactions with others in the course, the program, and the campus community.

c. Demonstrate an understanding of and ability to apply the tenets of Interprofessional Education (IE)

Through increased knowledge of their intended profession as well as other health professions as evidenced through discussions, blog entries, and the ability to substantively participate in group activities.

Through successfully contributing to collaborative projects such as the Interprofessional Research Symposium project to which they are assigned.

Through increased awareness and knowledge of critical topics in health care as evidenced by their ability to fully participate in group discussions and activities.

## **Additional Information**

### **Program Core Faculty**

Find a program faculty list (https://dentistry.ucsf.edu/programs/dds/faculty/) on the program website.

## **Degree Requirements**

- Completion of all scheduled classes, workshops, seminars, study groups and individual/group meetings called by program personnel.
- Completion of all assignments, projects, and presentations as assigned.
- Required to enroll in and complete at least nine units of UC Berkeley Extension science coursework per semester, and the 3-unit UCSF seminar per quarter.
- A minimum in-progress grade point average is a 3.0, and that failure to maintain this grade point average could result in dismissal from the program at the end of the fall term.
- The minimum grade point average required to earn the Program Certificate is 3.0.

- Abide by the UCSF Code of Conduct (https://chancellor.ucsf.edu/ sites/g/files/tkssra3931/f/Code%20of%20Conduct.pdf).
- Abide by the Policy on Student Conduct and Discipline (https://studentlife.ucsf.edu/student-conduct-and-discipline/).
- Uphold the expectations of professionalism of the School of Dentistry.

### **Core Courses**

INTERDEPT 205 Preparing for Health Professions School (three units in each term, taken in all terms)

Dentistry— UNEX science courses (18 units) - Three courses per semester (course availability is subject to change): UC Berkeley Extension courses in sciences, mathematics, and biotechnology (https://extension.berkeley.edu/academic-areas/sciences-mathematics-and-biotechnology/)

### **UCB Extension**

Visit UC Berkeley Extension (https://extension.berkeley.edu/)

Code	Title	Units
Upper-Division Science		
Fall Courses:		
MCELLBI X134 1		3
MCELLBI X110 1		3
MCELLBI X499.4 1		3
CHEM X416 <sup>1</sup>		3
INTEGBI X109 1		3
MCELLBI X143 <sup>1</sup>		3
MCELLBI X424		3
MCELLBI X108 <sup>1</sup>		3
MCELLBI X413 1		3
MCELLBI X410.1		3
MCELLBI X427		2
MCELLBI X444		3
MCELLBI X471 <sup>1</sup>		3
MCELLBI X474		3
MCELLBI X499.5		3
INTEGBI X104		3
MCELLBI XB32		3
Spring Courses:		
MCELLBI X107A		3
MCELLBI X108		3
MCELLBI X116		3
MCELLBI X126		3
MCELLBI X138		3
MCELLBI X419		3
MCELLBI X420		3
Total Units		71

These courses can also be taken during the spring term.

## **Non-course Core Requirements**

Continuous Quality Improvement Project – Research based project with all three cohorts

## Interprofessional Health Post-Baccalaureate Certificate Program in Medicine

Visit program website. (https://meded.ucsf.edu/post-baccalaureate-program/)

**Degree Offered:** Certificate **Program Leadership:** 

Lucy Ogbu-Nwobodo, MD, Director Valerie Margol, MA, Associate Director

**Admissions Inquiries:** 

LaTasha Mitchell, Senior Program Coordinator Daysia Sngoeun, Program Coordinator

## **Program Description**

The Interprofessional Health Post-Baccalaureate Certificate Program represents a comprehensive educational opportunity designed for individuals from underrepresented, underserved, or low-income backgrounds. Through a combination of advanced science coursework, test preparation, collaborative study, and personalized support in preparing for the professional school application process, participants are able to distinguish themselves as competitive candidates for health professional schools.

Since 1999, post-baccalaureate students in the UCSF schools of dentistry and medicine have been successful in gaining admission to health professions schools throughout the United States. Both programs have consistently seen high acceptance rates: The medical program has an established acceptance rate of 96% and the dental program has a similarly successful acceptance rate of over 90%. In 2010, the School of Pharmacy launched a program modeled after those in the schools of dentistry and medicine, and in 2011 all three programs were united under the UCSF Interprofessional Health Post-Baccalaureate Certificate Program.

Post-baccalaureate students complete science coursework through UC Berkeley Extension and participate in graduate seminars at UCSF to enrich their knowledge of the health professions and prepare them for the professional school application process. Students in all three programs benefit from personalized advising; students in medicine and dentistry also benefit from focused entrance exam preparation. As members of a formal university graduate certificate program, students participate in campus life and take advantage of student resources in areas of financial aid, health insurance, library services, learning assistance and more.

The Interprofessional Health Post-Baccalaureate Certificate Program is offered by the UCSF Graduate Division and administered by the UCSF schools of dentistry, medicine, and pharmacy.

The UCSF School of Medicine Post-Baccalaureate Program is a comprehensive, structured program designed for individuals from disadvantaged and underserved backgrounds who have been unsuccessful in gaining admission to medical school or who have completed the required undergraduate course work but need to improve their academic profiles before initiating the medical school application process.

The program helps individuals increase their chances of gaining admission to medical school by offering intensive MCAT review, assistance with medical school application preparation, science

course work, graduate seminars on health care issues in underserved communities, academic skills workshops, faculty and medical student mentoring, and participation in an interprofessional quality improvement project supervised by UCSF faculty members.

### **Admission Requirements**

To be eligible for this program, applicants must be considered disadvantaged or be from an underserved community, be a resident of California, have completed an undergraduate degree or higher from an accredited U.S. college or university, and have a minimum overall GPA of 2.94 or higher; minimum 2.8 GPA in science and math courses.

Applicants must have completed one year of biology with laboratory, one year of chemistry with laboratory, one year of organic chemistry with laboratory, one year of physics with laboratory and one semester/ quarter of biochemistry. Reapplicants must have taken the MCAT prior to matriculation.

## **Learning Outcomes**

Students will participate in multiple modalities to improve their MCAT score and grade point average, improve study methods and academic skills such as written and oral communication, navigate the medical school application process, and learn health care processes improvement in a supervised interprofessional quality improvement project.

### **Additional Information**

### **Program Core Faculty**

- · Valerie Margol, MA, Associate Director
- · Lucy Ogbu-Nwobodo, MD, Director
- · LaTasha Mitchell, Senior Program Coordinator

#### **Career Outcomes**

- Matriculation to U.S. Medical School: 96% of program alumni
- Of alumni who matriculate to medical school: 64% attend(ed) medical school in CA, 59% attend(ed) medical school at a UC medical school, and 19% attend(ed) medical school at UCSF.

### **Degree Requirements**

- a. You must enroll in at least three 3-unit classes (9 units) per semester at UC Berkeley Extension, and maintain a minimum 3.0 GPA.
- You must abide by all UC Berkeley Extension's policies regarding expectations for student conduct and academic integrity.
- c. You must enroll in a 3-unit Interprofessional Health Post Bac graduate seminar at UCSF each quarter.
- d. Timely reports on classes in which you are enrolled, grades earned, MCAT scores earned, medical school secondary requests, medical school interview requests, medical school acceptances.
- e. Full participation in program evaluation components.
- f. Immediate disclosure of any issue affecting your full participation in the program.
- g. Must complete interprofessional health continuous quality improvement project.

### **Core Courses**

 INTERDEPT 206 Medicine Post-Baccalaureate Program Related Study (0 units)

- INTERDEPT 205 Preparing for Health Professions School (3 units in each term, taken in all terms)
- Medicine UNEX science courses (18 units) 3 courses per semester (course availability is subject to change): https:// extension.berkeley.edu/academic-areas/sciences-mathematics-andbiotechnology/

### **UCB Extension**

https://extension.berkeley.edu/search/publicCourseSearchDetails.do?method=load&courseID (https://extension.berkeley.edu/search/publicCourseSearchDetails.do?method=load&courseID)

Code	Title	Units
Upper-Division Science		
Fall Courses		
MCELLBI X134 <sup>1</sup>		3
MCELLBI X110 1		3
MCELLBI X499.4 <sup>1</sup>		3
CHEM X416 <sup>1</sup>		3
INTEGBI X109 1		3
MCELLBI X143 <sup>1</sup>		3
MCELLBI X424		3
MCELLBI X108 <sup>1</sup>		3
MCELLBI X413 <sup>1</sup>		3
MCELLBI X410.1		3
MCELLBI X427		2
MCELLBI X444		3
MCELLBI X471 <sup>1</sup>		3
MCELLBI X474		3
MCELLBI X499.5		3
INTEGBI X104 <sup>1</sup>		3
MCELLBI XB32 1		3
Spring Courses		
MCELLBI X107A		3
MCELLBI X108		3
MCELLBI X116		3
MCELLBI X126		3
MCELLBI X138		3
MCELLBI X419		3
MCELLBI X420		3
Total Units		71

<sup>&</sup>lt;sup>1</sup> These courses can also be taken during the spring term.

## **Non-course Core Requirements**

• Interprofessional Continuous Quality Improvement Project

## Interprofessional Health Post-Baccalaureate Certificate Program in Pharmacy

Visit program website. (https://pharmd.ucsf.edu/admissions/postbacc/)

**Degree Offered:** Certificate **Program Leadership:** 

Sharon L. Youmans, PharmD, MPH, Vice Dean Joel W. Gonzales, Director of Admissions Lauren Anderson, Outreach and Recruitment Coordinator Admissions Inquiries:

Lauren Anderson, Outreach and Recruitment Coordinator

## **Program Description**

The Interprofessional Health Post-Baccalaureate Certificate Program represents a comprehensive educational opportunity designed for individuals from disadvantaged backgrounds, underserved communities, and/or from groups traditionally underrepresented in the health professions. Through a combination of advanced science coursework, test preparation, collaborative study, and personalized support in preparing for the professional school application process, participants are able to distinguish themselves as competitive candidates for health professional schools.

Since 1999, post-baccalaureate students in the UCSF schools of dentistry and medicine have been successful in gaining admission to health professions schools throughout the United States. Both programs have consistently seen high acceptance rates: the medical program has an established acceptance rate of 93% and the dental program has a similarly successful acceptance rate of over 90%. In 2010, the School of Pharmacy launched a program modeled after those in the schools of dentistry and medicine, and in 2011 all three programs were united under the UCSF Interprofessional Health Post-Baccalaureate Certificate Program.

Post-baccalaureate students complete coursework through UC Berkeley Extension and participate in seminars at UCSF to enrich their knowledge of the health professions and prepare them for the professional school application process. Students in all three programs benefit from personalized advising; students in medicine and dentistry also benefit from focused entrance exam preparation. As members of a formal university graduate certificate program, students participate in campus life and take advantage of student resources in areas of financial aid, health insurance, library services, learning assistance and more.

The Interprofessional Health Post-Baccalaureate Certificate Program is offered by the UCSF Graduate Division and administered by the UCSF schools of dentistry, medicine, and pharmacy.

The program aims to make students more competitive through a comprehensive and structured program. Using a combination of upper-division academic coursework, personalized support in application preparation, and constructive seminars, students will be able to strengthen their application to pharmacy school.

## **Admission Requirements**

a. Have a minimum GPA of 2.8 or higher (including a minimum 2.8 GPA in the sciences). Exceptions can be made.

- Have completed the majority of prerequisites for pharmacy school, with no more than one semester or a quarter of outstanding prerequisite work remaining.
- c. Have completed the following courses:
  - · One year of biology with laboratory
  - · One year of chemistry with laboratory
  - · One year of organic chemistry with laboratory
  - · One course of microbiology with laboratory
  - · Mathematics (calculus and statistics)
  - · English composition
  - · Upper-division biological sciences
  - Humanities

## **Learning Outcomes**

The content of the program has been developed to facilitate the success of the program's 3 learning objectives: *Application Preparation (AP), Skill Development (SD)*, and *Interprofessional Education (IE)*. By the end of the program students will:

Demonstrate understanding of strategic *Application Preparation (AP)* through:

- a. The ability to prepare written statements acceptable for submission to professional schools.
- Knowledge of best practices for identifying letter of evaluation/ recommendation writers, soliciting writers, and providing appropriate information to the writers.
- Pharmacy students will create appropriate lists of professional organizations through the use of research, oral presentation and sharing resources.
- d. Knowledge of how to prepare for an applicant interview and practice interviewing.
  - Demonstrate *Skill Development (SD)* in areas critical for success in professional school such as:
- e. Improved time management skills and academic strategies as demonstrated by an improvement in academic performance.
- f. Improved written and oral communication skills as assessed through course assignments.
- g. Demonstrated evidence of professionalism through their interactions with others in the course, the program, and the campus community.

Demonstrate an understanding of and ability to apply the tenets of *Interprofessional Education (IE)*:

- h. Through increased knowledge of their intended profession as well
  as other health professions as evidenced through discussions, blog
  entries, and the ability to substantively participate in group activities.
- Through successfully contributing to collaborative projects such as the Interprofessional Research Symposium project to which they are assigned.
- j. Through increased awareness and knowledge of critical topics in healthcare as evidenced by their ability to fully participate in group discussions and activities.

## **Additional Information**

### **Program Core Faculty**

• Find a program faculty list (https://pharmacy.ucsf.edu/people/faculty/) on the program website.

## **Degree Requirements**

- a. Attend all scheduled class sessions, workshops, seminars, study groups and individual/group meetings called by program personnel.
- b. Complete all assignments, projects, and presentations as assigned.
- Follow the recommendations of program personnel regarding the following:
  - UC Berkeley Extension course selections for fall and spring semesters
  - ii. Time spent outside of the program (i.e. working, volunteering, etc.)
- d. Provide the program personnel with the following on a timely basis:
  - Midterm and final grades in all classes taken at UC Berkeley Extension.
  - ii. List(s) of pharmacy schools applied to.
  - iii. Program evaluation forms, as required.
- e. Attend counseling sessions as needed or required throughout the duration of the program.
- f. Enroll in and complete a minimum of 9 units of UC Berkeley Extension science coursework and the 3-unit per quarter UCSF seminar.
- g. Recognize that the minimum in-progress grade point average considered satisfactory is 3.0.

### **Core Courses**

INTERDEPT 205 Preparing for Health Professions School (3 units in each term, taken in all terms)

Pharmacy – UNEX science courses (18 units) - 3 courses per semester (course availability is subject to change): https://extension.berkeley.edu/academic-areas/sciences-mathematics-and-biotechnology/

### **UCB Extension Courses**

https://extension.berkeley.edu/search/publicCourseSearchDetails.do?method=load&courseID (https://extension.berkeley.edu/search/publicCourseSearchDetails.do?method=load&courseID)

Code	Title	Units
CHEM X19A		4.5
CHEM X36.1B		3
CHEM X36A		4.5
CHEM X36B		4.5
CHEM X416		4.5
INTEGBI X104		4.5
INTEGBI X109		4.5
INTEGBI X15B		4.5
MCELLBI X110		4.5
MCELLBI X115A		4.5
MCELLBI X126		4.5
MCELLBI X134		4.5
MCELLBI X136		1.5
MCELLBI X138		4.5
MCELLBI X143		4.5

Total Units	94.5
MCELLBI XB32	4.5
MCELLBI X499.5	4.5
MCELLBI X474	4.5
MCELLBI X471	4.5
MCELLBI X424	4.5
MCELLBI X420	4.5
MCELLBI X15A	4.5

## **Medical Anthropology (PhD)**

Visit program website. (https://humsci.ucsf.edu/medical-anthropology/)

Degree Offered: PhD Program Leadership:

Ian Whitmarsh, PhD, Program Director

**Admissions Inquiries:** 

Bonita Dyess, Program Manager

## **Program Description**

The joint UCSF/UC Berkeley PhD in Medical Anthropology is one of the pioneering programs in the discipline both nationally and globally. The program brings together one of the finest medical universities and one of the finest arts and sciences universities in the country to offer students a theoretically engaged approach to emerging issues in medical anthropology. No other program offers the joint program's combination of excellence in critical medical anthropology; studies of science, technology, and modernity; and training in historically informed, pedagogically rigorous social theory.

Students in the program are trained to develop original, creative, and relevant scholarship that contributes to both medical science and social science fields. The program emphasizes the ways social theory can be used to analyze urgent issues in contemporary health. These include: how populations are predisposed for care or violence; how markets structure health and the provision of aid; and differences in how life, ethics, and personhood are constituted.

The program also offers a unique opportunity for dual degree students through the Medical Anthropology MD/PhD track, which includes the Medical Sciences Training Program (https://mstp.ucsf.edu/). This track graduates physician scholars able to contribute to anthropological scholarship, medical science, and clinical care.

### **Faculty**

On the UCSF campus, the program has ten core faculty and 34 affiliated faculty from UCSF's Department of Humanities and Social Sciences, as well as UC Berkeley and UC Merced.

### **Thematic Areas**

- · Critical global health
- · Critical race theory
- · Structural competency
- · Reproductive justice
- Social studies of science and technology
- · Addiction and inequity
- · Built environment and management of urban poverty
- · Social dynamics of disaster and recovery
- · Chemical harm and social accountability
- · Decolonizing medicine and health sciences

The Medical Anthropology program office at UCSF is located at the Mission Bay campus. Visit the program website (https://humsci.ucsf.edu/medical-anthropology/) for more information.

## **Admission Requirements**

BA or BS in Anthropology or related field.

### **Learning Outcomes**

- Deep understanding of the major theoretical approaches in medical anthropology.
- · Knowledge of and ability to use ethnographic methods.
- Ability to design, conduct, and analyze independent anthropological research.
- Facility with fundamentals of medical anthropological analysis and interpretation.

### **Additional Information**

### **Program Core Faculty**

 Find a program faculty list (https://humsci.ucsf.edu/medicalanthropology/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate
 Division website

## **Degree Requirements**

- · Two years of required and elective courses
- · Prequalifying exam
- · Foreign language requirement
- · Statistics requirement
- Qualifying exam based on two field statements and a research proposal
- · One year of independent doctoral fieldwork research
- · Dissertation based on fieldwork research
- Department presentation of dissertation findings
- · Completion and submission of the dissertation

### Core Courses

Core Con 36	3	
Course	Title	Units
Year 1		
ANTHROPOL 205A	Intro to Sociocultural Theory	4
ANTHROPOL 205B	Introduction to Sociocultural Theory	4
ANTHROPOL 211A	Research Training Seminar	4
ANTHRO 240A and 240B at	t UCB	6
	Units	18
Year 2		
ANTHROPOL 211B	Research Training Seminar	8-10
ANTHROPOL 211C	Research Training Seminar	6-8
	Units	14-18
Year 3 and Beyond		
Some of these classes are	required and some are electives: 1	
ANTHROPOL 200	Off-Campus Study	0
ANTHROPOL 225	Contemporary Issues	2-4
ANTHROPOL 249	Directed Reading	2
ANTHROPOL 250	Research	5
ANTHROPOL 297	Special Study	1-5
ANTHROPOL 299	Dissertation	0
	Units	10-16
	Total Units	42-52

All students take electives at UCB, which are different for every student, depending upon their particular focus area.

## **Non-course Core Requirements**

Attendance and participation in seminar series.

See Degree Requirements above.

## **Medical Scientist Training Program**

Visit program website. (https://mstp.ucsf.edu/)

## **Program Description**

The Medical Scientist Training Program (MSTP) at UCSF is designed to train the next generation of physician-investigators by offering a rigorous, integrated, and supportive educational experience leading to both the MD and PhD degrees. MSTP offers a combination of an outstanding public medical school with an innovative curriculum, committed and renowned faculty, and a collection of premier graduate training programs. Leadership includes Director Aimee Kao, MD, PhD, and three associate directors who are accomplished physician-scientists with complementary areas of scientific expertise: Catherine Lomen-Hoerth, MD, PhD; Mercedes Paredes, MD, PhD; and Dean Sheppard, MD. The MSTP Council includes 38 distinguished investigators who advise students, screen applicants for admission, serve on PhD thesis committees, and participate regularly in other MSTP activities.

### **Training Program**

The MSTP training sequence generally consists of the one-and-a-half pre-clerkship years of medical school, followed by four years of graduate research leading to a doctoral dissertation, and the final five quarters of medical school clinical clerkships. This curriculum enables students to complete their MD/PhD training as efficiently as possible while still maintaining the highest standards for both degrees.

Medical School Years. UCSF's medical curriculum provides a set of educational experiences designed to support students' mastery of the core knowledge and skills needed to achieve their goals as physicians, researchers, teachers, and public servants: Patient Care, Medical Knowledge, Practice-Based Learning and Improvement, Interpersonal/ Communication Skills, Professionalism, Systems-Based Practice, and Interprofessional Collaboration. Achievement of these competencies is assessed through written and laboratory practical examinations, structured clinical examinations, instructor and peer assessments, and self-reflection exercises. Students are assigned an MSTP faculty adviser with whom they meet quarterly in the first two years of medical school to decide on rotation labs, a graduate program, and assess required course work to ensure a smooth transition into graduate school. Journal Club introduces original research papers and promotes informal discussion about laboratory research between MSTP students and their medical school classmates in the first two years of medical school; and MSTP Seminar Series introduces students to potential research topics and faculty mentors. Lab Rotations: Summer prior to first year of medical school (optional), after first year and again after completing USMLE Step 1 exams in the second year. A minimum of two are required and up to four are acceptable.

The Graduate Programs. Each student chooses their graduate program during their second year of medical school and enters graduate school after completing the USMLE Step 1 examination. The students have already completed two laboratory rotations and begin thesis work while taking any remaining graduate courses. Since many have completed coursework during the first two years of medical school, this positions students to take their qualifying exams at the end of the third year or early in the fourth year. They remain full-time graduate students until they complete their thesis work and have written an approved dissertation. Each graduate program establishes policies for thesis committees, but MSTP students are required to have at least one MSTP Council member on her/his committee, providing programmatic oversight and ensuring

optimal progress towards completing PhD thesis work. Students are required to meet with their thesis committee every six months. During graduate school, students can take a Clinical Preceptorship, an elective designed specifically to allow MSTP students to maintain their clinical skills and interests during graduate school. Clinical Case Reviews is a vehicle for PhD-phase MSTPs to practice generating differential diagnoses, presenting orally, and discussing next steps for treatment and prognosis. Into the Clinic is an intensive re-introduction to clinical medicine for MSTP students completing graduate studies and planning to return to medical school.

**Time to Degree.** MSTP has implemented policies to reduce the time to degree, which include:

- a. Optional early summer lab rotations and early choice of a thesis lab;
- b. The temporal integration of graduate program course opportunities with the medical school curriculum;
- c. Reducing required graduate program electives;
- d. Decreasing required lab rotations from three to two;
- e. Requiring earlier qualifying exams; and
- f. Timely reviews by thesis committees (every six months).

These policies and programs have contributed to a continued reduction in time to degree to 8.6 years within the past ten years.

### **Mentoring and Evaluation of Students**

Throughout the training program, students receive mentoring, evaluation and guidance from both their Medical MSTP and PhD advisers.

**Graduate Training.** Students are assigned academic advisers and meet quarterly during the first year of the PhD. After advancing to candidacy and forming their thesis committee, they meet every six months. The MSTP administration tracks these milestones and works with the PhD administration to assist students who may be experiencing difficulties.

**Medical School.** Students are assigned a College Advisory Mentor who also holds an MD/PhD who advises and guides the students through clinical training.

Clinical Faculty Advisers for Students Reentering Medical School. Students returning to medical school are assigned a physician-scientist faculty adviser to advise them in the selection of clinical specialties for residency application.

## **Additional Information**

Contact for questions and additional info:

mstp@ucsf.edu

# **Neuroscience (PhD)**

Visit program website. (http://neurograd.ucsf.edu)

**Degree Offered:** PhD **Program Leadership:** 

Samuel Pleasure, MD, PhD, Program Director

**Admissions Inquiries:** 

Neuroscience Graduate Program, neurosciadmin@listsrv.ucsf.edu

# **Program Description**

The Neuroscience PhD program prepares students for independent research and teaching in neuroscience. It seeks to train students who will be expert in one particular approach to neuroscientific research, but who will also have a strong general background in other areas of neuroscience and related disciplines. To achieve this objective, students take interdisciplinary core and advanced courses in neuroscience, as well as related courses sponsored by other graduate programs. In addition, students carry out research under the supervision of faculty members in the program.

The UCSF Neuroscience program faculty, who are among the world leaders in their respective areas of neuroscience, utilize innovative cellular, computational, electrophysiological, genetic, imaging, and molecular strategies to address outstanding problems in neuroscience. These approaches are employed in an integrative manner to engage in research in all areas of neuroscience, including behavior, biophysics, cell biology, development, neural systems, and disorders of the nervous system. The collaborative nature of the UCSF environment offers a unique opportunity in which to take advantage of the interdisciplinary nature of research at the frontier of modern neuroscience.

The UCSF Neuroscience Program is committed to a diverse and inclusive graduate student population, which enhances the educational experience, the workplace, and the nature of scientific research.

#### **Faculty**

The Neuroscience program currently has 100 faculty members from the following departments and areas: Anatomy, Biochemistry and Biophysics, Bioengineering, the Brain and Spinal Cord Injury Center, Cell and Tissue Biology, CMP, CVRI, the Diabetes Center, IND, Gladstone Institutes, Neurological Surgery, Neurology, the Neuroscience Imaging Center, Ophthalmology, Oral and Maxillofacial Surgery, Otolaryngology, Pathology, Pediatrics-Medical Genetics, Pediatrics-Neonatology, Pharmaceutical Chemistry, Physical Therapy, Physiology, and Psychiatry.

The Neuroscience program is a member of the Program in Biological Sciences (https://pibs.ucsf.edu/) (PIBS).

#### **Sub-Disciplines**

- Addiction Research
- · Behavioral Neuroscience
- · Cell and Molecular Neuroscience
- Developmental Neuroscience
- Nervous System Disease
- · Synaptic Physiology
- · Systems Neuroscience
- · Theoretical/Computational Neuroscience

The Neuroscience program is based primarily at Mission Bay, but also has faculty at Parnassus, the UCSF affiliated Veterans Administration

Medical Center, and San Francisco General Hospital. Visit the program website (https://neurograd.ucsf.edu/) for more information.

The Neuroscience program is offered by the UCSF Graduate Division, administered by the UCSF School of Medicine, and delivered by faculty members in the UCSF schools of dentistry, medicine, and pharmacy.

# **Admission Requirements**

- Undergraduate courses in biology, physics, inorganic and organic chemistry, and calculus.
- Prior research experience (undergraduate thesis projects, internships, technician positions, summer research programs, etc.)

# **Learning Outcomes**

- a. General knowledge and understanding of modern neuroscience.
- b. Theoretical understanding of a broad range of modern neuroscientific techniques.
- c. Ability to read, critically assess, and review contemporary scientific literature
- d. Ability to identify outstanding questions in the field, and to design experiments that are ethical and viable to advance the field.
- e. Practical expertise in techniques relevant to a subfield of neuroscientific research.
- f. Capacity to produce high-quality grant proposals and scientific papers.
- g. Clear communication of scientific research to both scientific and nonscientific audiences
- h. Conceptualization of the importance of mentorship, the variety of needs that accompany students of different backgrounds, and demonstration of mentorship ability.

# **Additional Information**

## **Program Core Faculty**

 Find a program faculty list (https://neurograd.ucsf.edu/faculty/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

In order to assess the successful completion of the goals set out for students of the Neuroscience program, the program requires:

- An agreement of the student's thesis committee that the student has demonstrated sufficient aptitude toward the above goals, as well as
- b. The production of a graduate thesis in the form of a dissertation that demonstrates:
  - 1. Minimum GPA of 3.0
  - 2. All core courses and required activities taken and passed
  - 3. Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
  - 4. Pass qualifying examination
  - 5. Completion and submission of the dissertation
  - For additional details, please see graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

- In addition to the dissertation, students are required to:
- 7. Hold a thesis seminar, in which a curated portion of the dissertation is presented to an audience consisting of both neuroscientists and non-neuroscientists.
- 8. Have published, or have begun the process of publishing, a firstauthor scientific paper in a reputable peer-reviewed journal (under exceptional circumstances the thesis committee may assess the adequacy for graduation based on meeting all the other requirements for graduation without a first-author paper).

# **Core Courses**

Code	Title	Units
NEUROSCI 200	Introduction to Neuroscience. Essential Concepts & Methods	2.5
NEUROSCI 201A	Basic Concepts in Cellular and Molecular Neuroscience	5
NEUROSCI 201B	Basic Concepts for Cellular and Developmental Neuroscience	4
NEUROSCI 201C	Introduction to Systems and Behavioral Neuroscience	4
NEUROSCI 215	Laboratory Rotation	8-12
NEUROSCI 221	Current Topics in Neuroscience	1
NEUROSCI 250	Research	1-8
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
GRAD 215	Managing your Research for Reproducibility	1
Total Units		28-39

### **Approved Electives**

• •		
Code	Title	Units
NEUROSCI 219	Special Topics in Basic and Translational Neuroscience	3
NEUROSCI 220	Neuroscience Journal Club	1
BIOMED SCI 270	Special Topics in Biomedical Sciences	3
BIOPHYSICS 219	Special Topics in Biophysics	3
CHEMISTRY 219	Special Topics in Basic and Translational Chemical Biology	3
DEV STMCEL 270	Special Topics in Developmental & Stem Cell Biology	3
GRAD 202	Racism in Science	3
GRAD 210	Justice, Equity, Diversity and Inclusion Academic Leadership	4
GRAD 213	Motivating INformed Decisions (MIND) Catalytic Course	2
GRAD 286	GSICE Curricular Practicum	1
PHARMGENOM 219	Special Topics in Pharm Sci and Pharmacogenomics	3
Other elective courses mappropriate.	ay be approved by the program as	

# **Non-course Core Requirements**

- · Teaching assistantship
- · Qualifying exam
- Dissertation

# **Nursing (DNP)**

Visit program website. (https://nursing.ucsf.edu/admissions/welcomeucsf-nursing/our-programs-application-information/)

Degree Offered: DNP Program Leadership:

KT Waxman, RN, DNP, FAAN, Program Director Annette Carley, RN, DNP, NP, Associate Director, Post-Masters Entry to

DNP

**Admissions Inquiries:** 

BSN Entry to DNP. NursingAdmissionsSupport@ucsf.edu Post-Master's Entry to DNP. Shanna Abeloff, Program Administrator

# **Program Description**

The UCSF School of Nursing offers two pathways for nurses to achieve the profession's highest clinical degree: the Doctor of Nursing Practice.

- The BSN Entry to DNP Advanced Nursing Focus (https:// nursing.ucsf.edu/bsn-entry-dnp-advanced-nursing-focus/) pathway enables individuals with a bachelor's degree in nursing to become experts and leaders in health equity. Applicants will master the skills in one of 10 advanced specialties and complete their studies toward the DNP degree. The school expects to welcome its first cohort in the new pathway in June 2024, pending approval from the California Board of Registered Nursing.
- The Post-Master's Entry to DNP Leadership Focus (https:// nursing.ucsf.edu/admissions/welcome-ucsf-nursing/doctoralprograms/post-masters-entry-dnp-leadership-focus/) pathway prepares registered nurses who hold a master's degree with the skills to innovate improvements and lead teams in developing approaches to care that address population needs.

A core component of the degree program is the DNP quality improvement project, in which students identify a health care practice issue and formulate a solution that improves clinical outcomes. In direct consultation with faculty mentors, students will conceive, evaluate and defend their scholarly work. They will also develop strategies to disseminate their scholarly work and to implement practices based on their conclusions.

The UCSF School of Nursing takes pride in its graduate programs, which represent a century of pioneering leadership that has produced many top influencers in the field in the U.S. and abroad. Among schools of nursing nationwide, the UCSF School of Nursing is one of the top recipients of research funding from the National Institutes of Health.

The UCSF School of Nursing has a dedicated faculty of more than 150 experts who share a passion for educating the next generation of health care leaders and leading innovative research that advances health equity for all. Faculty members at the school are distinguished leaders in their areas of expertise and have led – and continue to lead – innovations and policy improvements locally, nationally and around the globe.

The Nursing DNP program is offered by the UCSF Graduate Division, administered by the UCSF School of Nursing, and delivered by faculty members in the UCSF School of Nursing.

# **Admission Requirements**

 a. Graduate of an accredited college or university with a master's degree in nursing. Applicants who hold a master's degree in another healthrelated field will be evaluated on a case-by-case basis.

- b. Minimum GPA 3.0
- c. Completion of minimum 240 practice hours during prior master's or post-master's coursework. National certification in one of the four recognized Advanced Practice Registered Nursing (APRN) roles (i.e. nurse practitioner, clinical nurse specialist, nurse anesthetist, and nurse-midwife) may substitute for 500 incoming APRN practice hours. Current national certification as a certified nurse executive (i.e. NEA-BC or CENP) may substitute for 500 incoming practice hours. Up to 500 total incoming practice hours eligible; remaining hours to achieve final 1,000 post-baccalaureate nursing practice hours required for degree conferral will occur during the program of study.
- Registered Nurse with active license in CA or state where the DNP project will occur.
- e. College level statistics course completed within five years of the start of the program.
- f. Resume or curriculum vitae
- g. Three confidential letters of recommendation
- h. Goal statement and personal history statement

# **DNP Core Learning Outcomes**

- Integrate nursing science, science-based theory and systems knowledge into the development and evaluation of new practice approaches to care.
- Apply analytic methods to the critical appraisal of literature and other evidence to develop and support best practice.
- c. Convene and lead interprofessional, collaborative stakeholder teams to create change and advance positive health outcomes.
- d. Generate, evaluate and articulate innovative solutions to complex care issues.
- e. Analyze the impact of local, national and global health policy on determinants of care decisions.
- f. Support cost and resource efficiency, quality and accessibility of healthcare for diverse client groups.
- g. Advocate for nursing and socially and ethically relevant policy in healthcare design and delivery.
- h. Support and effectively lead quality improvement initiatives that enhance safe, quality and evidence-driven care.
- Demonstrate leadership skill in developing approaches to care that address population needs based on science and evidence.

# Additional Information

## **Program Core Faculty**

 Find a program faculty list (https://nursing.ucsf.edu/admissions/ welcome-ucsf-nursing/doctoral-programs/dnp/meet-our-dnpprogram-faculty/) on the program website.

# **Degree Requirements**

Students must complete a minimum of 1,000 post-Baccalaureate practice hours for DNP degree conferral, based on accreditation requirements set by Commission on Collegiate Nursing Education (CCNE). These are pro-rated depending on the number of incoming eligible practice hours based on a portfolio and transcript review. Students must provide evidence of a minimum of 240 incoming practice hours to be eligible for admission to the program.

Students develop a scholarly DNP Project, representing a terminal synthesis of data related to an identified health care practice issue. The DNP Project is developed over multiple quarters, and systematically

conceived, planned, implemented, evaluated, and formally presented in collaboration with a project team.

## **Core Courses**

Course	Title	Units
Quarter 1		
NURSING 263	DNP Prologue	2
NURSING 263.11	Concepts and Contemporary Issues for the DNP	3
NURSING 263.12	Critical Appraisal of Evidence-Based Practice	3
NURSING 463.1	DNP Practicum *	1
	Units	9
Quarter 2		
NURSING 263.14	Improving Health Outcomes Through QI and Patient Safety	3
NURSING 263.15	Advanced Health Policy and Advocacy	3
NURSING 463.1	DNP Practicum *	1-5
	Units	7-11
Quarter 3		
NURSING 263.13	Methods and Measurement for Translational Practice Inquiry	3
NURSING 463.1	DNP Practicum *	1-5
	Units	4-8
Quarter 4		
NURSING 263A	DNP Project I: Project Conceptualization and Planning	2
NURSING 263.18	Advanced Concepts in Clinical Prevention & Population Health	3
NURSING 463.1	DNP Practicum *	1-5
	Units	6-10
Quarter 5		
NURSING 263.1	DNP Intersession	1
NURSING 263B	DNP Project II: Project Planning and Implementation	2
NURSING 463.1	DNP Practicum *	3-5
	Units	6-8
Quarter 6		
NURSING 263C	DNP Project III: Project Implementation and Evaluation	2
NURSING 463.1	DNP Practicum *	2-5
NURSING 263.19	Informatics for the nurse leader	2
	Units	6-9
Quarter 7		
NURSING 263.2	DNP Epilogue	1
NURSING 463.1	DNP Practicum *	3-5
	Units	4-6
	Total Units	42-61

Students will enroll in the 463.1 practicum course for each quarter of their program of study. Individual quarter practicum units are determined by the total number of practice hours (i.e. one practicum unit = 30 practice hours) remaining to be completed in the program of study. Full-time study is a minimum of six total units per quarter

#### **Approved Electives**

Code	Title	Units
NURSING 363	Foundations of Academic and Clinical	2
	Teaching in Nursing	
NURSING 363.1	Teaching in the Online Environment	2

Successful progression through the DNP Residency and DNP Project series courses is mandatory prior to moving forward to the next course in

sequence. Please consult the SON Graduate Student Handbook for more information.

# **Non-course Core Requirements**

Students develop a scholarly DNP Project, representing a terminal synthesis of data related to an identified health care practice issue. The DNP Project is systematically conceived, planned, implemented, evaluated, and formally presented in collaboration with a project team. The scholarly project is required for degree conferral and is shepherded by a course series (N263A-D) over multiple quarters of study.

# **Nursing (MS)**

Visit program website. (https://nursing.ucsf.edu/admissions/welcome-ucsf-nursing/master-science-program/)

**Degree Offered:** MS **Program Leadership:** 

Mary Lynch, DNP, MPH, PNP, FAAN: Program Director

**Admissions Inquiries:** 

nursingadmissionssupport@ucsf.edu

New admissions to the Master of Science program are closed.

The UCSF School of Nursing is expanding its doctoral programming to meet the growing demand for doctorally prepared nurses who will lead innovative change in an increasingly complex health care environment. The school is launching a new BSN Entry to the Doctor of Nursing Practice (DNP) — Advanced Nursing Focus (https://nursing.ucsf.edu/bsn-entry-dnp-advanced-nursing-focus/) pathway, pending approval of the curriculum by the California Board of Registered Nursing.

# **Program Description**

The Nursing Master of Science program prepares leaders in the advanced practice roles of clinical nurse specialist, nurse practitioner, nurse-midwife, administrator, faculty, and consultant. Courses from nursing and other disciplines provide advanced theoretical knowledge, assessment skills, leadership development, advanced clinical practice in a selected specialization and opportunity to critique and apply nursing theory and research as a scientific base for nursing practice.

The UCSF School of Nursing takes pride in its graduate programs, which represent a century of pioneering leadership that has produced many of the country's — and the world's — nursing leaders. Among schools of nursing nationwide, the UCSF School of Nursing is one of the top recipients of research funding from the National Institutes of Health. The School's graduate students have many opportunities to capitalize on the symbiotic relationship between the Nursing PhD, MS, and MEPN programs and the other basic, clinical, and social and populational science programs offered by the Graduate Division.

#### **Faculty**

There are over 100 faculty members in the four School of Nursing departments. See a list of Nursing faculty research (https://nursing.ucsf.edu/research/overview/research-themes/) areas.

#### **Sub-Disciplines**

The Nursing MS program offers 10 areas of specialization and 7 elective areas of focus. See the MS program website (https://nursing.ucsf.edu/academics/programs/master-science-advanced-practice-programs/) for details.

#### **Career Outcomes**

The Master of Science program prepares leaders in the advanced practice roles of nurse practitioner, clinical nurse specialist, nurse-midwife, health policy expert, community/population health expert, administrator, teacher and consultant.

Upon completion of the Master of Science Program, students will be eligible to apply for certain certifications. More detailed certification information for each specialty is outlined on each specialty webpage.

# **Admission Requirements**

· New admissions to the Master of Science program are closed.

# **Learning Outcomes**

Courses from nursing and other disciplines provide advanced theoretical knowledge, assessment skills, role/leadership development, and advanced clinical practice in a selected specialization. The curriculum offers an opportunity to critique and apply nursing theory and research as a scientific base for nursing practice. Most applicants applying to this program are experienced registered nurses who have successfully completed a bachelor's degree.

Graduates of the master's program will have:

- Knowledge and skills in providing care that promotes health and prevents illness.
- Knowledge concerning current and projected health care systems and the economic, political and philosophical base.
- Knowledge of research methodologies, research critique and outcomes research.
- Knowledge and skills to manage client care needs across the health/ illness spectrum.
- Knowledge and skills to coordinate client care needs across institutional boundaries. This may be as a generalist, a specialist or an administrator. Coordination of care must be done in partnership with client and lay caregiver.
- Knowledge concerning health care issues for ethnically and culturally diverse populations as the basis for practicing cultural humility and providing culturally competent care.
- Knowledge required to be proactive in the health care system. This
  will necessitate knowledge of the legal, legislative and regulatory
  issues for advanced practice nursing, consumer rights, systems
  management and change theory.
- Knowledge and skills to participate in the ethical decision-making process.
- Theoretical knowledge and some experience in role development as an advanced practice clinician, consultant, educator, administrator, researcher and coordinator

# **Degree Requirements**

- · Minimum GPA of 3.0
- Minimum 36 units of didactic coursework and eight units of professional/clinical coursework
- · All core courses and required activities taken and passed
- Pass comprehensive examination or complete and submit a master's thesis (students should consult with their program for specific requirements).
- For additional details, please see Master's Degrees (https://graduate.ucsf.edu/masters-degree/)
- Master's specialties will have their own specific requirements for curriculum, practica, and residencies for the program as well as state licensure and national certification.
- Advanced practice registered nursing students, (e.g., nurse practitioner students, nurse midwifery students, and clinical

- nurse specialist students) have a specific number of required clinical practicum hours that must be met in order to take national certification examinations.
- Students enrolled in advanced nursing specialties that are not focused on direct patient care (e.g., Health Policy, Advanced Public Health Nursing), are required to complete a minimum number of units focused on fieldwork or residency in their focus area.

## **Core Courses**

Code	Title	Units
Graduate Core Courses 1		
NURSING 200A	Foundations of Interprofessional Collaborative Practice - A	1
NURSING 217F	Racism, Health Care, and Social Justice	2
NURSING 234C	Evidence-Based Project Proposal Development	2
NURSING 245A	Clinical Prevention and Population Health A	1-2
NURSING 262	Foundation in Nursing Scholarship	3
NURSING 294D	Essentials of Human Genomics for Nurses	1
Clinical Core Courses 1		
NURSING 208	Advanced Physiology and Pathophysiology	2
NURSING 270	Advanced Health Assessment	2
<b>Primary Care Core Cours</b>	es <sup>1</sup>	
NURSING 246	Symptom Assessment & Management	3
NURSING 247	Management of Complex Health Problems	3
NURSING 257	Assessment & Management of Common Psychiatric Symptoms	2
NURSING 288D	Clinical Nurse Specialist Seminar	1
NURSING 288F	Management of Acute and Chronic Illness	2
NUTRITION 218	Nutrition Therapy: Diet and Disease	2
Total Units		27-28

May vary depending on specialty

#### **Electives**

All MS students are required to complete Graduate Core and Clinical Core Courses. In addition to completing the Graduate Core Courses and Clinical Core Courses, each specialty has a unique curriculum that contains coursework necessary to fulfill national standards in that specialty area. Please visit the master's program website (https://nursing.ucsf.edu/academics/programs/master-science-advanced-practice-programs/) for more information regarding the additional curriculum requirements for each specialty.

# **Non-course Core Requirements**

Structural Inequities Course Requirement: Completion of two units of structural inequities coursework is part of the required core curriculum for all master's students.

# **Nursing (PhD)**

Visit program website. (https://nursing.ucsf.edu/admissions/welcomeucsf-nursing/doctoral-programs/phd-nursing/)

Degree Offered: PhD Program Leadership:

Sandra Weiss, RN, PhD, FAAN, Professor and Interim Director

**Admissions Inquiries:** 

Debbie Acoba, PhD Program Coordinator

# **Program Description**

The goal of the PhD Program in Nursing is to prepare nurse scientists who will generate and transmit knowledge fundamental to the discipline of nursing and to nursing practice. Graduates of the program pursue careers as academic research faculty, clinical researchers, and other positions through which they contribute to knowledge development and research leadership.

Students are not required to align with a particular area of educational preparation in the PhD program; rather they are matched to individual faculty based on their research interests. However, there are areas of specialized knowledge in the school that students may select for research preparation, such as: 1) health equity, 2) symptom science, 3) community and population health, 4) digital health, omics and data science, or 5) aging and the life course. Research training is also supported in the fields of occupational/environmental health and HIV/

The Nursing PhD program is offered by the UCSF Graduate Division and taught by faculty members in the UCSF School of Nursing. These faculty are from the School's four departments but also involve interdisciplinary collaborations with colleagues from other schools on the 10 campuses of the University of California as well as national and international colleagues. Thus, PhD students receive scientific mentorship and socialization from nursing and interdisciplinary faculty who have national and international reputations, networks, and contacts. See a list of nursing faculty research areas (https://nursing.ucsf.edu/research/).

The UCSF School of Nursing takes pride in its graduate programs, which represent a century of pioneering leadership that has produced many of the country's – and the world's – renowned nurse scientists and visionary nursing leaders. Among schools of nursing nationwide, the UCSF School of Nursing is one of the top recipients of research funding from the National Institutes of Health and its faculty are widely recognized for their many publications and cited scholarly works.

#### **Faculty**

There are over 100 faculty members in the four School of Nursing departments. See a list of Nursing faculty research (https://nursing.ucsf.edu/research/overview/research-themes/) areas.

The Nursing PhD program is offered by the UCSF Graduate Division. The program is administered by the UCSF School of Nursing and delivered by faculty members in the UCSF School of Nursing.

# **Admission Requirements**

- · Engagement with faculty
- Prior degree in Nursing with a 3.5 minimum GPA on a 4.0 scale
- · Official transcripts from all educational institutions
- · Statistics course prerequisite within three years prior to matriculation

- · Research course prerequisite within five years prior to matriculation
- · English proficiency exam: TOEFL or IELTS
- · RN licensure in California or home state of residency
- · RN experience of minimum of one year is preferred
- · Goal statement
- · Four to five letters of recommendation
- · Résumé or curriculum vitae

Find more details on our website (https://nursing.ucsf.edu/admissions/welcome-ucsf-nursing/doctoral-programs/phd-nursing/requirements/#International-Applicants).

# **Learning Outcomes**

Students who complete the PhD program will have achieved the following:

- Demonstrate a command of the literature pertinent to a selected field of nursing science;
- b. Formulate research questions that evolve from a theoretical perspective and contribute to nursing science;
- Demonstrate breadth of knowledge regarding a variety of research methods and expertise in at least one method;
- d. Address major research issues pertinent to a selected area of inquiry, such as scientific integrity and diversity;
- e. Defend a historical, theoretical, and philosophical perspective for nursing science in general and for a selected field of investigation in particular;
- f. Demonstrate commitment to a program of research as manifested by the selection of an area of inquiry that has potential for continuity and cumulative generation of knowledge;
- g. Demonstrate the ability to write and defend research proposals as preparation for subsequent intramural and extramural support;
- h. Complete an independent and original research investigation in the form of a dissertation;
- Show increased appreciation of professional involvement as evidenced by scholarly presentations, community service, and organizational participation.

# **Additional Information**

# **Program Faculty**

 There are over 100 faculty members in the four School of Nursing departments. See a list of Nursing faculty research (https:// nursing.ucsf.edu/research/overview/research-themes/) areas.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

- · Minimum GPA of 3.0
- All core courses and required activities taken and passed, including six units of research residency
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the dissertation

 For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

#### **Core Courses**

#### This course list is subject to change and may be found at:

nursing.ucsf.edu/academics/programs/phd-nursing#Doctoral-Foundation-Course-Schedule (https://nursing.ucsf.edu/academics/programs/phd-nursing/#Doctoral-Foundation-Course-Schedule)

#### **Quantitative Nursing PhD Track**

Code	Title	Units
Core Courses		
NURSING 202A	Theory Development in Nursing	3
NURSING 209A	Comparative Qualitative Research Design	2
NURSING 209B	Quantitative Research Design	2
NURSING 209C	Quantitative Research Designs - II	3
NURSING 212	Introduction to Biostatistical Computation	2
NURSING 212A	Qualitative Data Collection & Ethics	2
NURSING 212B	Quantitative Measurement & Theory	3
NURSING 229	Philosophy of Nursing Science	3
NURSING 269	Integration of Scientific Literature	3
NURSING 289.01A	Approaches to Statistical Analyses	2
NURSING 289A	Advanced Quantitative Research Methods I	3
Theory		
Select one of the following	ng:	2-3
NURSING 290	Family Theory in Health Care Research	
NURSING 221.01	Theories in Aging and Palliative Care Research	
NURSING 253	Theories of the Health Policy Process	
Required for Quantitative	e Nursing PhD Track	
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
BIOSTAT 208	Biostatistical Methods II	3
Required for Sociology a	nd Qualitative Nursing PhD Track:	
NURSING 251.01	Proposal and Grant Writing	2
NURSING 285A	Qualitative Methods I	5
or SOCIOLOGY 285A	Qualitative Methods I	
NURSING 285B	Qualitative Methods II	5
or SOCIOLOGY 285B	Qualitative Methods II	
Total Units		48-49

Required for recipients of SON's 3-year funding; optional for other students.

# Sociology and Qualitative Nursing PhD Track

Code	Title	Units
Core Courses		
NURSING 202A	Theory Development in Nursing	3
NURSING 209A	Comparative Qualitative Research Design	2
NURSING 209B	Quantitative Research Design	2

NURSING 209C	Quantitative Research Designs - II	3
NURSING 212	Introduction to Biostatistical Computation	2
NURSING 212A	Qualitative Data Collection & Ethics	2
NURSING 212B	Quantitative Measurement & Theory	3
NURSING 229	Philosophy of Nursing Science	3
NURSING 269	Integration of Scientific Literature	3
NURSING 289.01A	Approaches to Statistical Analyses	2
NURSING 289A	Advanced Quantitative Research Methods I	3
Theory		
Select one of the following	ng:	2-3
NURSING 290	Family Theory in Health Care Research	
NURSING 221.01	Theories in Aging and Palliative Care Research	
NURSING 253	Theories of the Health Policy Process	
Required for Sociology a	nd Qualitative Nursing PhD Track	
NURSING/SOCIOLOGY 285A	Qualitative Methods I	5
NURSING/SOCIOLOGY 285B	Qualitative Methods II	5
NURSING 251.01	Proposal and Grant Writing	2
NURSING 276	Research Residency <sup>2</sup>	6
NURSING 250	Nursing Qualifying Examination <sup>3</sup>	1-8

Required for recipients of SON's 3-year funding; optional for other students.

50-61

Dissertation <sup>4</sup>

#### **Electives**

NURSING 299
Total Units

Code	Title	Units
NURSING 220	Role Development Seminar	2
NURSING 222	Mixed Methods Research	2
NURSING 223B	Theories and Methods of Symptom Science	2
NURSING 240.11	Occupational & Environmental Health Research Seminar	1
NURSING 240.16	Research Issues in Aging: Interdisciplinary Perspectives	2
NURSING 248	Group Independent Study	0.5-6
NURSING 286A	Community-Based Participatory Research Methods	2
NURSING 289.01	Advanced Methods: Meta-Analysis	2
NURSING 298A	Qualifying Examination Seminar	2

# **Non-course Core Requirements**

The UCSF SON PhD core curriculum recommends that PhD students complete one or more cognate courses before taking their qualifying

<sup>&</sup>lt;sup>2</sup> 6 units prior to Qualifying Exam

<sup>&</sup>lt;sup>3</sup> Pre-candidacy/qualifying exam preparation

Post-qualifying exam, advancement to candidacy, dissertation preparation and submission.

examination (in addition to other core courses, research residencies, and  $\ensuremath{\mathsf{ANS}}\xspace$  ).

# **Nursing Master's Entry Program**

Visit program website. (https://nursing.ucsf.edu/admissions/welcome-ucsf-nursing/masters-entry-program-nursing/)

Degree Offered: no degree granted until completion of Masters in Nursing

#### Program Leadership:

Marianne Biangone, PhD, RN, PHN, Program Director Lin Lin, PhD, RN, Assistant Director **Admissions Inquiries:** son\_studentaffairs@ucsf.edu

#### PROGRAM PAUSED:

As a leading academic institution, the UCSF School of Nursing continuously evaluates how well our educational programs are meeting the contemporary needs of our students and our ability to address the demands of the ever-evolving health care environment. To meet these goals and advance our educational mission, the school is excited to expand our doctoral education opportunities in 2023 to prepare more nurses to lead innovations in health care.

The school will also pause the Master's Entry Program in Nursing (MEPN) while our evaluation of our academic offerings continues. The decision to pause MEPN will be reassessed in fall 2025.

# **Program Description**

The Master's Entry Program in Nursing (MEPN) is a three-year program leading to the Master of Science in Nursing degree; however, the MEPN program is intended for students who have no previous nursing preparation and who hold a bachelor's degree in another field. Graduates of this program go on to practice nursing at the same advanced practice level as other Nursing MS (p. 113) graduates. The program prepares leaders in the advanced practice roles of clinical nurse specialist, nurse practitioner, nurse-midwife, administrator, faculty, and consultant. Courses from nursing and other disciplines provide advanced theoretical knowledge, assessment skills, leadership development, advanced clinical practice in a selected specialization, and the opportunity to critique and apply nursing theory and research as a scientific basis for nursing practice.

During the first year of the program, you will engage in concentrated study that culminates in licensure as an RN. Students are eligible to take the National Council Licensure Examination (NCLEX-RN) as approved by the California Board of Registered Nursing (BRN). In the remaining two years of the program, you will matriculate into our Master's of Science program for graduate level nursing specialty training, choosing from a comprehensive selection of specialties; and includes clinical rotations, fieldwork and residency hours at sites primarily in the greater San Francisco Bay Area. At the end of the three-year program, you will earn an RN license and an advanced master's degree in the specialty you choose.

The UCSF MEPN program offers a broader range of specialty offerings than similar programs at other institutions, and has a relatively short list of requirements, easing the burden on adult students coming from backgrounds outside of the health sciences.

The UCSF School of Nursing takes pride in both the graduate and professional programs it administers. These programs represent a century of pioneering leadership that has produced many of the country's — and the world's — nursing leaders. Among schools of nursing nationwide, the UCSF School of Nursing is among the top recipients of research funding from the National Institutes of Health. The School's graduate students have ample opportunities to capitalize on the symbiotic relationship between the Nursing PhD, MS, and MEPN programs, and the other basic, clinical, and social and populational science programs offered by the Graduate Division.

#### **Faculty**

There are over 100 faculty members in the four School of Nursing departments. MEPN faculty belong to the following departments for their content speciaty areas: 1) Family Health Care Nursing; 2) Community Health Systems; and 3) Physiological Nursing.

#### **MEPN-MS Program Specialty Areas**

The MEPN program offers nine areas of specialization. See the MS program website (https://nursing.ucsf.edu/academics/programs/masterscience-advanced-practice-programs/) for details.

#### **Career Outcomes**

Based on the specialty choice at admission, Nursing MS and MEPN graduates typically find work in California as nurse practitioners, nurse midwives or clinical nurse specialists. Others assume research, policy or leadership positions in the state and around the country.

The Nursing MEPN program is based at the Parnassus campus. Visit the program website (https://nursing.ucsf.edu/admissions/welcome-ucsf-nursing/masters-entry-program-nursing/) for more information.

The Nursing MEPN program is offered by the UCSF Graduate Division, administered by the UCSF School of Nursing, and delivered by faculty members in the UCSF School of Nursing.

# **Admission Requirements**

Completion of intro- or higher-level courses with passing grades and worth at least two semester units or three quarter units in each of the following:

- · Microbiology, with a lab component
- Physiology, with a lab component
- · Anatomy, with a lab component
- Note: Combined anatomy and physiology courses are acceptable as long as they comprise a comprehensive systems overview totaling at least four semester units or six quarter units.
- Psychology
- Nutrition
- Statistics (Note: Course completion at college-level within three years of UCSF application date.)

Bachelor's degree, completed in a general discipline other than nursing and conferred no later than the September 1 application deadline as verified by an official transcript.

**Goal Statement** 

4-5 Letters of Recommendation

Minimum GPA 3.0. Note: If you feel that you merit review despite failing to meet the minimum GPA requirement, submit a petition to

nursingadmissionssupport@ucsf.edu outlining the evidence of your capacity for academic success. Your petition will not be reviewed until you have submitted a completed application.

# **Learning Outcomes**

During the first year (the MEPN pre-licensure year) of the program, students will engage in full-time concentrated study that culminates in licensure as an RN. Students are eligible to take the National Council Licensure Examination (NCLEX-RN) as approved by the California Board of Registered Nursing (BRN).

In the remaining two years of the program, after successfully passing the NCLEX-RN licensure exam to become certified as a registered nurse, students matriculate into our Master's of Science program for graduate level nursing specialty training. At the end of the three-year program, students are awarded an advanced master's degree with an RN license in the specialty you choose.

Graduates of the master's program will have:

- Knowledge and skills in providing care that promotes health and prevents illness.
- Knowledge concerning current and projected health care systems and the economic, political and philosophical base.
- Knowledge of research methodologies, research critique and outcomes research.
- Knowledge and skills to manage client care needs across the health/ illness spectrum.
- Knowledge and skills to coordinate client care needs across institutional boundaries. This may be as a generalist, a specialist or an administrator. Coordination of care must be done in partnership with client and lay caregiver.
- Knowledge concerning health care issues for ethnically and culturally diverse populations as the basis for practicing cultural humility and provide culturally competent care.
- Knowledge required to be proactive in the health care system. This
  will necessitate knowledge of the legal, legislative and regulatory
  issues for advanced practice nursing, consumer rights, systems
  management and change theory.
- Knowledge and skills to participate in the ethical decision-making process.
- Theoretical knowledge and some experience in role development as an advanced practice clinician, consultant, educator, administrator, researcher and coordinator.

# **Degree Requirements**

Degree requirements for the MEPN program may be refreshed when the program is reassessed in 2025. Degree requirements for cohorts admitted in 2021 and 2022 can be referenced in our archived catalogs (https://catalog.ucsf.edu/archive/).

# Nursing Post-Master's Certificate Program

Visit program website. (https://nursing.ucsf.edu/admissions/welcomeucsf-nursing/post-masters-and-postdoctoral-studies/post-masterscertificate/)

Degree Offered: Advanced Certificate

Program Leadership:

Mary Lynch, DNP, MPH, PNP, Program Director

You may also contact the coordinator for the specialty (https://ucsf.box.com/s/tsi9ynekhbmf91nr8po4xrvd4ikln1qu/) you're interested in if you have questions.

**Admissions Inquiries:** 

nursingadmissionssupport@ucsf.edu

# **Program Description**

The Nursing Post-Master's Certificate Program enables nurses with a master's degree in nursing to pursue state certification in an additional specialty area or seek a program of study that may lead to a change in role (e.g., a CNL or CNS seeking an NP specialization certificate).

# **Admission Requirements**

Applicants must have completed and received a master of science degree in nursing, typically MS, MSN or MN.

If accepted, applicants must be licensed by the state Board of Registered Nursing (https://rn.ca.gov/) and their nursing license must be recognized as valid for practice within the State of California during the complete course of study. (If your RN is from another U.S. state, or from Canada, you may qualify for Licensure by Endorsement (https://rn.ca.gov/applicants/lic-end.shtml/) by the BRN.)

Additional admissions requirements include:

- Official transcripts from all post-secondary institutions, including any programs in which you are currently enrolled
- · Goal statement
- · Minimum of 3 letters of recommendation
- · Resume or CV
- English proficiency for non-native speakers

Test Type	Minimum Score
TOEFL	92
ILTS	7

Some specialties may have additional requirements. Check the specialty webpages (https://nursing.ucsf.edu/admissions/welcome-ucsf-nursing/post-masters-and-postdoctoral-studies/post-masters-certificate/) for more details.

## **Learning Outcomes**

Advanced preparation as an NP, CNM, CNS, or population health nurse; certification at the state and national level in chosen specialty.

# **Degree Requirements**

Completion, pending gap analysis, of all didactic and clinical experiences for certification at the state and national level in the chosen specialty. Minimum GPA of 3.0.

#### **Core Courses**

The Post-Master's program does not have a single separate curriculum. Each MS specialty's webpage carries information (https://nursing.ucsf.edu/academics/programs/master-science-advanced-practice-programs/) about specific courses and curricula requirements. The specialty coordinator or specialty adviser will work with each student on a gap analysis to determine what specific curricular requirements are required for successful completion of the individual program.

# **Nursing Practice (Post-BSN)**

Visit program website. (https://nursing.ucsf.edu/bsn-entry-dnp-advanced-nursing-focus/)

Degree Offered: DNP Program Leadership:

KT Waxman, DNP, RN, FAAN: Program Director

**Admissions Inquiries:** 

NursingAdmissionsSupport@ucsf.edu

# **Program Description**

The UCSF School of Nursing Offers a BSN entry to DNP – Advanced Nursing Focus pathway for the profession's highest clinical degree: the Doctor of Nursing Practice.

The Post-Baccalaureate Entry to the Doctor of Nursing Practice (DNP) Program will prepare nurses who hold a Bachelor of Science in Nursing to become Advanced Practice Nurses or Specialists in Health Policy and Public Health in addition to completing the Doctor of Nursing Practice degree. This advanced graduate preparation will support the UCSF School of Nursing to implement an innovative curriculum that includes leadership, health policy and health equity as key tenets of advanced clinical practice in varied health care environments. Students can select from multiple specialties leading to four roles: Nurse Practitioner, Nurse Midwife, Clinical Nurse Specialist or Specialist in Health Policy and Public Health.

A core component of the degree program is the DNP Scholarly Project, in which students identify a health care practice issue and formulate a solution that improves clinical outcomes. In direct consultation with faculty mentors, students will conceive, evaluate and defend their scholarly work. They will also develop strategies to disseminate their scholarly work and to implement practices based on their conclusions.

The UCSF School of Nursing takes pride in its graduate programs, which represent a century of pioneering leadership that has produced many top influencers in the field in the U.S. and abroad. Among schools of nursing nationwide, the UCSF School of Nursing is one of the top recipients of research funding from the National Institutes of Health.

The UCSF School of Nursing has a dedicated faculty of more than 150 experts who share a passion for educating the next generation of health care leaders and leading innovative research that advances health equity for all. Faculty members at the school are distinguished leaders in their areas of expertise and have led – and continue to lead – innovations and policy improvements locally, nationally and around the globe.

The Nursing DNP program is offered by the UCSF Graduate Division, administered by the UCSF School of Nursing, and delivered by faculty members in the UCSF School of Nursing.

# **Admission Requirements**

The list below shows a high-level overview of the program's application requirements. For full admission requirements, please see the School of Nursing website (https://nursing.ucsf.edu/admissions-academics/doctoral-programs/bsn-entry-dnp-advanced-nursing-focus/bsn-entry-dnp/).

 Applicants are required to have graduated from an accredited college or university with a bachelor's degree in nursing, documented by an official transcript.

- b. Applicants are required to upload a **transcript** (unofficial or official) to the application portal for review purposes.
- c. All applicants are required to demonstrate a minimum GPA of 3.0.
- d. Proficiency in English (both spoken and written) is mandatory for success in our programs.
- e. Applicants are required to complete and pass a **statistics course** within 5 years of the start of the program in June of your matriculating year. This must be a college-level course taken for credit at a regionally accredited institution. This can include online courses and/or courses from a community college or a regionally accredited institution.
- f. A résumé or curriculum vitae (CV) is required.
- g. Applicants must be licensed as a Registered Nurse (RN) in California.
- h. **Practice Requirements** should be reviewed on the School of Nursing website (https://nursing.ucsf.edu/admissions-academics/doctoral-programs/bsn-entry-dnp-advanced-nursing-focus/bsn-entry-dnp/#Practice-Requirements).
- i. Letters of Recommendation
- A comprehensive well-written goal#statement#essay is an essential component of a successful DNP application.
- k. A well-written Personal Statement
- I. Application Fee (subject to change)

Please review our FAQs (https://nursing.ucsf.edu/bsn-entry-dnp-faqs/) for more information and start your application (https://gradapp.ucsf.edu/register/apply/). If you have questions, please contact nursingadmissionssupport@ucsf.edu and a member of our Student Affairs team will respond to your inquiry

# **Learning Outcomes**

Graduates will:

- Demonstrate the ability to enter advanced practice through evaluation of evidence based and theoretical knowledge to develop ethical and equitable approaches to care.
- Collaborate with patients and families, care team members, and healthcare delivery systems to provide holistic, individualized, respectful and empowering care guided by values and inclusive of family, community, culture, and choice.
- c. Advocate for health promotion and disease management by collaborating with governmental and non governmental entities, communities and health systems to optimize the biological, psychological, financial, social and structural determinants of population health.
- d. Advance the scholarship of nursing through implementation, evaluation, and dissemination of evidence based and ethical innovations to improve and transform health care.
- e. Lead initiatives that minimize risk and facilitate optimal health outcomes by applying principles of safety and improvement science.
- f. Collaborate in interprofessional teams to improve professional practice and learning, with the goal of delivering high quality person centered and community level care.
- g. Develop and evaluate system wide innovations ensuring high quality, accessible, equitable, and cost effective care across diverse populations.
- h. Utilize relevant and adaptive technologies to optimize equitable person centered care that addresses practice gaps and health disparities.

- i. Cultivate a nursing identity that reflects professional nursing standards and values, including a commitment to self reflection, accountability, social justice, and ethical conduct.
- j. Identify and address gaps in professional knowledge through ongoing self reflection and self care behaviors to support lifelong learning, wellbeing, and professional service through leadership.

## **Additional Information**

#### **Program Core Specialty**

Find specialty information (https://nursing.ucsf.edu/bsn-entry-dnp-advanced-nursing-focus/) on the program website.

# **Degree Requirements**

Students must complete a minimum of 1,000 post-Baccalaureate practice hours for DNP degree conferral, based on accreditation requirements set by Commission on Collegiate Nursing Education (CCNE).

Students develop a DNP Scholarly Project, representing a terminal synthesis of data related to an identified health care practice issue. The DNP Project is developed over multiple quarters, and systematically conceived, planned, implemented, evaluated, and formally presented in collaboration with a project team.

# **Foundational Courses (Year 1)**

Course	Title	Units
Year 1		
Summer		
NURSADVPR 200	Concepts and Theory Application for Advanced Practice Nurses	3
NURSADVPR 202	Essentials of Human Genomics for the Advanced Practice Nurse	1
NURSADVPR 203	Structural Racism, Healthcare and Social Justice	2
NURSADVPR 210A	Introduction to the PB-DNP Program: Prelude to DNP Success	2
	Units	8
Fall		
NURSADVPR 204	Advanced Health Policy and Advocacy	3
NURSADVPR 205	Evidence Appraisal for the Nurse Leader	3
NURSADVPR 206	Principles of Clinical Prevention and Population Health	3
NURSADVPR 207A	Foundations of interprofessional practice for nurse leaders	1
	Units	10
Winter		
NURSADVPR 207A	Foundations of interprofessional practice for nurse leaders	1
NURSADVPR 208	Health Assessment for Advanced Practice	2
NURSADVPR 209	Clinical Pharmacology for Advanced Practice	3
NURSADVPR 211	Physiology and Pathophysiology for Advanced Practice	2
	Practice	
Specialty courses begin this		
Specialty courses begin this		8
Specialty courses begin this Spring	quarter. *	8
	quarter. *	8
Spring	quarter. *  Units  Foundations of interprofessional practice for nurse	
Spring NURSADVPR 207A	quarter. *  Units  Foundations of interprofessional practice for nurse leaders  Improving Health Outcomes by Advancing QI and	1

\* Please refer to each specialty curriculum to see when these courses occur for your specialty.

# **Oral and Craniofacial Sciences (MS)**

Degree Offered: MS Program website URL: N/A Program Leadership:

Nathan M. Young, PhD, Program Director

**Admissions Inquiries:** 

Roger Mraz, Program Coordinator

# **Program Description**

The Oral and Craniofacial Sciences (OCS) Master of Science degree is a "Plan I" program, requiring a minimum of 30 academic units and a written thesis, including at least one full year of research and didactic study. Students are encouraged to publish their MS thesis work in a peer-reviewed journal with their mentor.

Postgraduate programs at UCSF allow the combination of academic/ research training for the MS degree with clinical training leading to a specialty certification, usually over a three-year period.

Like the Oral and Craniofacial Sciences PhD program, the MS program is interdisciplinary in focus, and provides students with the knowledge and research tools needed to study oral and craniofacial tissue and organ systems. From a variety of approaches, students learn about the functions of these tissues and systems, and about the conditions and diseases to which these tissues and systems are susceptible. The OCS program emphasizes the importance of translating scientific discovery into advances in patient diagnosis, treatment, and clinical care.

#### **Faculty**

Fifty faculty members are associated with the OCS programs, representing several departments in the UCSF School of Dentistry as well as many departments in the UCSF School of Medicine. This ensures a program curriculum that spans a range of disciplines. See a list of faculty (https://dentistry.ucsf.edu/programs/oral-cranio-phd/faculty/) and their research areas.

#### **Career Outcomes**

Since the OCS/MS program is taken in conjunction with a professional program, most program alumni are working in a dental practice setting.

The OCS program office is located at the Parnassus campus. Please contact Roger Mraz, program administrator, if you have any questions.

The Oral and Craniofacial Sciences program is offered by the UCSF Graduate Division, administered by the UCSF School of Dentistry, and delivered by faculty members in the UCSF schools of dentistry and medicine.

# **Admission Requirements**

Students must be accepted and enrolled in a UCSF School of Dentistry residency program.

# **Learning Outcomes**

Upon completion of this program, students will have:

- a. Completed coursework and learned best practices in dental-based research including ethical considerations.
- Obtained statistical skills to appropriately design and test a research hypothesis.

- c. Developed an independent and novel hypothesis-driven research project from background reading to data collection to analysis and write up.
- d. Performed independent research leading to a published master's-level thesis.

## **Degree Requirements**

- · Minimum GPA of 3.0
- · 30 units (where applicable for MS programs)
- · All core courses and required activities taken and passed
- Pass comprehensive examination or completion and submission of a master's thesis (students should consult with their program for specific requirements).
- For additional details, please see: graduate.ucsf.edu/ocs-ms (https://graduate.ucsf.edu/ocs-ms/)

#### **Core Courses**

Code	Title	Units
DEN PUB HL 200	Ethical Considerations in Clinical & Public Health Dentistry	2
DEN PUB HL 210	Introduction to Research Methods and Design	2
OR CRA FAC 205	Advanced Topics in Pharmacology for the Dental Specialist	1
OR CRA FAC 220	Seminar Series	1
OR CRA FAC 250	Research	1-8
OR CRA FAC 283	Introduction of Biostatistics for Dentistry	2.5
OR CRA FAC 295	Masters Studies Journal Club	1
OR CRA FAC 296	Master's Thesis Project Design (Thesis Protocol)	1
Total Units	11	F 10 F

Total Units 11.5-18.5

# **Elective Requirements**

Code	Title	Units
CRAN ANOM 206	Etiology, Growth Characteristic and Management of Cleft Lip	2
CRAN ANOM 207	Etiology, Growth Characteristics & Management of CFA	2
OR CRA FAC 224	Host Response	2
ORAL MED 208	Oral Diseases	3
RESTOR DEN 213	Chemical Aspects of Dental Caries	2

# **Oral and Craniofacial Sciences (PhD)**

Visit program website. (https://dentistry.ucsf.edu/research/oral-craniofacial-sciences/)

Degree Offered: PhD Program Leadership:

Ralph Marcucio, PhD, Co-Director Pamela Den Besten, DDS, MS, Co-Director

**Admissions Inquiries:** 

Roger Mraz, Program Administrator

# **Program Description**

The Oral and Craniofacial Sciences (OCS) interdisciplinary PhD program provides students with the knowledge and research tools needed to study oral and craniofacial tissue and organ systems. From a variety of approaches, students learn about the functions of these tissues and systems, and about the conditions and diseases to which these tissues and systems are susceptible. The OCS program emphasizes the importance of translating scientific discovery into advances in patient treatment and clinical care.

The OCS graduate program aims to develop world leaders in scientific discovery, who will be able to translate their research into health benefits for patients worldwide. Recognizing that significant scientific discovery occurs at the crossroads of different disciplines, students acquire an outstanding level of competence in cell and molecular biology, which is incorporated with an in-depth examination of the key developmental, molecular, materials sciences questions related to oral and craniofacial sciences

#### **Faculty**

Fifty faculty members are associated with the OCS program, representing several departments in the UCSF School of Dentistry as well as many departments in the UCSF School of Medicine. This ensures a program curriculum that spans a range of disciplines. See a list of faculty (https://dentistry.ucsf.edu/programs/oral-cranio-phd/faculty/) and their research areas.

The OCS program office is located at the Parnassus campus. Visit the program website (https://dentistry.ucsf.edu/programs/oral-cranio-phd/) for more information.

The Oral and Craniofacial Sciences program is offered by the UCSF Graduate Division, administered by the UCSF School of Dentistry, and delivered by faculty members in the UCSF schools of dentistry and medicine.

# **Admission Requirements**

The requirements for Graduate Division admission are as follows:

- · Completion of an undergraduate degree.
- Statement of purpose (one page, single spaced)
- Three letters of recommendation (preferably from professors who are familiar with your research experience)
- · Original transcripts from all baccalaureate/graduate schools
- Original Test of English as a Foreign Language (TOEFL), if English is not your native language
- · Completed Graduate Division application, due by Dec. 1

## **Learning Outcomes**

- To provide our students with a foundation in biological sciences that will allow them to address a wide range of scientific questions in oral and craniofacial research. The oral facial complex contains tissues and cells of multiple organs and systems, and therefore, advances in oral and craniofacial health require a solid base in the biological sciences. Built on this background, our program affords broad scientific training that allows students to develop the interdisciplinary approaches required to address the problems of the craniofacial complex.
- To instill in our students our core scientific values of interdisciplinary
  collaboration and approaches to scientific questions; to work
  independently and as part of a team, and to value the contributions
  of others. The structure of our program, which includes research
  rotations in the first year, and a curriculum shared with the other
  flagship training programs on the UCSF campus, provides our
  students with a wide interdisciplinary experience, thus laying the
  foundation for research careers in dental and craniofacial research.
- To prepare the next generation of leaders in their fields and careers. Our program has a core emphasis on scientific excellence, and a focus on training in the tools, methods and knowledge necessary to conduct independent, rigorous, reproducible, and impactful research. Concurrently, we recognize that additional competencies—including leadership, management, effective written and oral presentation, communication and teamwork skills—will be needed for our students to successfully compete for positions in academia, industry, or the public sector. To address this need, we provide proactive mentoring and diverse professional development opportunities to help each student optimally prepare for their careers.

## **Additional Information**

#### **Program Faculty**

 Find a program faculty list (https://dentistry.ucsf.edu/programs/oralcranio-phd/faculty/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate
 Division website.

## **Degree Requirements**

- Minimum GPA of 3.0
- All core courses and required activities taken and passed
- · Pass qualifying examination
- · Completion, submission and presentation of the dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

#### **Core Courses**

Code	Title	Units
BIOMED SCI 260	Cell Biology	4
OR CRA FAC 215	Laboratory Rotation	6
BIOMED SCI 225A	Biostatistics and Computational Biology	2.5
OR CRA FAC 221	Current Concepts in Oral Biology	2.5

OR CRA FAC 222 OCS PhD Seminar Series 1
OR CRA FAC 270 Journal Club 1

# **Non-Course Core Requirements**

Public presentation of dissertation work.

# Oral and Craniofacial Sciences DDS/ PhD Program

Visit program website. (https://dentistry.ucsf.edu/programs/dds-phd/)

# **Program Description**

Offered under the auspices of the Graduate Program in Oral and Craniofacial Sciences, the DDS/PhD program in oral and craniofacial sciences provides training and experience in research.

The DDS/PhD program is designed to train academic research investigators of the future, who will carry out independent, high-quality research in oral biology, the foundations of which are in numerous oral health-related biomedical sciences: cell, developmental and molecular biology, biochemistry, biomaterials, biophysics and physical sciences.

### **Additional Information**

Contact for questions and additional info:

Roger Mraz, Program Administrator (roger.mraz@ucsf.edu)

# Pharmaceutical Sciences and Pharmacogenomics (PhD)

Visit program website. (https://pspg.ucsf.edu)

**Degree Offered**: PhD **Program Leadership**:

Su Guo, PhD, Co-Program Director Aparna Lakkaraju, PhD, Co-Program Director

**Admissions Inquiries:** 

Isaac Kaijankoski, Program Manager

# **Program Description**

The Pharmaceutical Sciences and Pharmacogenomics (PSPG) program educates students to address the major questions in the pharmaceutical sciences, teaches them the basic sciences needed to address these questions, and creates an environment where they can develop into independent and creative scientific problem solvers. This multidisciplinary graduate program has a dual focus on pharmaceutical sciences – including molecular and systems pharmacology, drug development and delivery, therapeutic bioengineering, and pharmacokinetics/pharmacodynamics – and pharmacogenomics, the application of genetics and genomics to drug action and disposition.

Large multidisciplinary research projects, focusing on membrane transporter pharmacogenetics and quantitative systems pharmacology, provide students with cross-disciplinary training in pharmacology, human genetics, and computational biology.

#### **Faculty**

More than 80 faculty members are associated with the PSPG program across more than 20 departments at UCSF. The PSPG faculty developed the foundation for current principles regarding the kinetics of drug action and variability in drug response, and it includes members of the National Academy of Sciences.

The PSPG program is a member of the Quantitative Biosciences Consortium (https://qbc.ucsf.edu/) (QBC) at UCSF.

#### **Sub-Disciplines**

- Pharmacogenomics and functional genomics
- · Quantitative and systems pharmacology
- · Computational genomics
- Molecular pharmacology
- · Drug development sciences
- · Therapeutic bioengineering

The PSPG program office is located at the Mission Bay campus. Visit the program website (https://pspg.ucsf.edu/) for more information.

The PSPG program is offered by the UCSF Graduate Division, administered by the UCSF School of Pharmacy, and delivered by faculty members in the UCSF schools of pharmacy and medicine.

# **Learning Outcomes**

 Find learning outcomes information (https://pspg.ucsf.edu/ about/) on the program website.

## **Additional Information**

#### **Program Core Faculty**

 Find a program faculty list (https://pspg.ucsf.edu/people/faculty/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

- · Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examination
- · Completion and submission of the dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

Obtaining a PhD from UCSF signifies that a student has demonstrated the ability to perform and complete high-quality research that makes an original contribution to their field. In practice, the expectation is that at least one first-author paper is "in press" before the thesis is signed. Learning to respond to reviewer critiques is a critical part of graduate training. There is, however, no simple bureaucratic formula to determine what is sufficient, and often the body of work forming a thesis is reported in multiple first-author publications; there are way too many scenarios, and so we rely on the judgment of the thesis committees to make the evaluation of a substantial and original contribution to science.

General Principles: The thesis committee has broad authority to determine when a student has completed a sufficient body of scientific work to graduate, literally by "signing off" on the thesis. In rare cases, the Executive Committee and the program director may become involved in the process, e.g., if the student and his/her adviser do not agree on when it is appropriate for the student to graduate. In no case is it acceptable for a student to ask their committee to sign their thesis solely because they have accepted a job or wish to "move on" for one reason or another. The degree will not be granted until the thesis committee is satisfied that the requirements for graduation have been met, e.g., by completing the publication process for a critical portion of the thesis, regardless of whether the student remains "in residence" at UCSF.

## **Core Courses**

Course	Title	Units
Year 1		
Fall		
PHARMGENOM 245A	Basic Principles of Pharmaceutical Sciences	5
PHARMGENOM 206	Laboratory Rotation	2-8
PHARMGENOM 220	Student Research Seminar	1
PHARMGENOM 297	Pharmaceutical Sciences and Pharmacogenomics Journal Club	1
PHARMGENOM 223	Formal Seminar	1
BIOSTAT 273	Introduction to Biostatistics	1
GRAD 202	Racism in Science	3
	Units	14-20
Winter		
PHARMGENOM 245B.1	Systems Pharmacology	2

	Total Units	39.5-71.5
	Units	3-10
PHARMGENOM 223	Formal Seminar	1
PHARMGENOM 220	Student Research Seminar	1
PHARMGENOM 250	Research	1-8
Fall/Winter/Spring		
Year 3 and Above		
	Units	4-11
PHARMGENOM 223	Formal Seminar	1
PHARMGENOM 297	Pharmaceutical Sciences and Pharmacogenomics Journal Club	1
PHARMGENOM 220	Student Research Seminar	1
PHARMGENOM 250	Research	1-8
Fall/Winter/Spring		
Year 2	Units	9.5-15.5
	Reproducibility  Units	9.5-15.5
GRAD 214	Responsible Conduct of Research and Rigor &	1.5
PHARMGENOM 223	Formal Seminar	1
PHARMGENOM 297	Pharmaceutical Sciences and Pharmacogenomics Journal Club	1
PHARMGENOM 220	Student Research Seminar	1
PHARMGENOM 206	Laboratory Rotation	2-8
PHARMGENOM 245C	Principles of Pharmacogenomics	3
Spring	Onto	3 13
PHARMGENUM 223	Linits	9-15
PHARMGENOM 297 PHARMGENOM 223	Pharmaceutical Sciences and Pharmacogenomics Journal Club Formal Seminar	1
PHARMGENOM 220	Student Research Seminar	1
PHARMGENOM 206	Laboratory Rotation	2-8
PHARMGENOM 245B.2	Systems Pharmacology	2
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## **Approved Electives**

Code	Title	Units
Fall		
BIO MD INF 206	Statistical Methods for Bioinformatics	4
CHEMISTRY 243	Chemical Biology	5
MICROBIOL 204	Molecular and Cellular Immunology	3
EPIDEMIOL 263	Demographic Methods for Health	1.5
BIOMED SCI 225A	Biostatistics and Computational Biology	2.5
Winter		
BIO MD INF 203	Biocomputing Algorithms	4
CHEMISTRY 244	Reaction Mechanisms	3
BIOPHYSICS 204B	Methods in Macromolecular Structure	4
BIOMED SCI 225A	Biostatistics and Computational Biology	2.5
PHARMGENOM 271	Advanced Pharmacokinetics in Clinical Drug Development	4
PHARMGENOM 260A	Advanced Clinical Experience in Clin Pharm & Pharmacology (A - E available in all quarters)	1-3
Spring		

Two mini courses from any program as listed here: https://minicourses.ucsf.edu

# **Non-course Core Requirements**

- First Year Student-lead Bootcamp
- First Year Pizza Talks Faculty share their research
- · QBC Retreat
- PSPG Annual Alumni-Student Activity
- Qualifying Exam by June of year 2
- Thesis Meetings every 6-9 months

# Postgraduate Program in Dental Public Health - Certificate

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/dental-public-health/)

**Degree Offered:** Certificate **Program Leadership:** 

Enihomo Obadan-Udoh, DDS, MPH, Dr.Med.Sc., Program Director

**Admissions Inquiries:** 

Brennan Crilly, Assistant Director, Admissions and Outreach

# **Program Description**

This 12-month full-time program leads to a certificate in Dental Public Health. It prepares residents to become specialists in dental public health and to be board-certified by the American Board of Dental Public Health.

# **Admission Requirements**

To be eligible for admission to the Dental Public Health postgraduate program, you must meet the following requirements:

- · Hold a DDS/DMD degree or equivalent by the start of the program
- Hold an Master of Public Health (MPH) degree or equivalent by the start of the program
- Take the Test of English as a Foreign Language (TOEFL), if your native language is not English and you have not completed at least one year of college or university-level studies in the United States.

Learn more about Dental Public Health admissions (https://dentistry.ucsf.edu/programs/post-grad/dental-public-health/admissions/).

# Learning Outcomes

#### **Learning Objectives**

- a. To enable residents to develop competency in the following 10 areas outlined by the American Board of Dental Public Health (ABDPH) for dental public health specialists:
  - i. Manage oral health programs for population health
  - ii. Evaluate systems of care that impact oral health
  - iii. Demonstrate ethical decision-making in the practice of DPH
  - iv. Design surveillance systems to measure oral health status and its determinants
  - v. Communicate on oral and public health issues
  - vi. Lead collaborations on oral and public health issues
  - vii. Advocate for public health policy, legislation, and regulations to protect and promote the public's oral health, and overall health
  - viii. Critically appraise evidence to address oral and public health issues for individuals and populations
  - ix. Conduct research to address oral and public health problems
  - x. Integrate the social determinants of health into DPH practice

Note: Patient care is not an objective of this program.

 To prepare residents to become eligible for the ABDPH Certification Exams and to encourage them to attain diplomate status within five years of completing their training  To produce graduates who actively contribute to dental public health education, research, and practice through their job positions upon graduation.

## **Additional Information**

#### **Program Core Faculty**

 Find a program faculty list (https://dentistry.ucsf.edu/programs/postgrad/dental-public-health/faculty/) on the program website.

## **Degree Requirements**

Completion of core DPH courses, two research projects in a format suitable for the ABDPH certification examination, participation in a field site experience, and an attempt of the ABDPH Qualifying Examination.

#### **Core Courses**

Prior to the beginning of each quarter (Summer, Fall, Winter and Spring), each student shall register for all required core Dental Public Health courses and any elective courses recommended by the program director. Information for the DPH courses is available on the CLE (Collaborative Learning Environment). A list of confirmed course registrations must be placed in the residency program folder on or before the first day of the quarter (and no later than two weeks after). Please request the program director's approval prior to each quarter.

Code	Title	Units
DEN PUB HL 200	Ethical Considerations in Clinical & Public Health Dentistry	2
DEN PUB HL 210	Introduction to Research Methods and Design	2
DEN PUB HL 400	Dental Public Health Projects	2-8
DEN PUB HL 410	Dental Public Health Core and Contemporary Topics Seminar <sup>1</sup>	2-4
DEN PUB HL 420	Dental Public Health Field Site Experience	10
DEN PUB HL 430	Quality Improvement in Dental Care Settings	4.5
DEN PUB HL 440	Introduction to Dental Public Health	2
DEN PUB HL 475	Dental Public Health Lecture Series <sup>2</sup>	1

<sup>1</sup> Repeat for a total of 9 units.

#### **Electives**

Code	Title	Units
OR CRA FAC 283	Introduction of Biostatistics for Dentistry	2.5
PED DENT 440	Topics in Pediatric Dentistry for the DPH Postgraduate	1.5

<sup>&</sup>lt;sup>2</sup> Repeat for a total of 3 units.

# Postgraduate Program in Oral Medicine - Certificate

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/oral-medicine/)

**Degree Offered:** Certificate **Program Leadership:** 

Kamal Al-Eryani, DDS, PhD, Program Director

**Admissions Inquiries:** 

Brennan Crilly, Assistant Director, Admissions and Outreach

# **Program Description**

The Postgraduate Program in Oral Medicine is a full-time, 36-month residency, accredited by the Commission on Dental Accreditation, leading to a certificate in oral medicine and an MS degree in oral and craniofacial sciences. All residents are provided with a stipend that is based upon the PGY level of training.

The program is aimed at preparing dentists to diagnose and treat complex oral problems, manage oral conditions and diseases that occur in medically complex patients, recognize and manage oral manifestations of primary and acquired immunodeficiency, and manage oral diseases, salivary gland dysfunction, facial pain and chemosensory disorders. The program's main goal is to train residents for either a full-time or a part-time career in academic settings as an oral medicine specialist who can treat a diverse patient population, participate in interdisciplinary care and contribute to the knowledge base through research.

## **Admission Requirements**

We accept two postgraduate students into the Oral Medicine program each year.

To be eligible for the program, you must meet the following requirements:

- · Hold a DDS, DMD degree or equivalent by the start of the program
- Take the Test of English as a Foreign Language (TOEFL), if your native language is not English and you have not completed at least one year of college or university-level studies in the United States. Scores/ results must be within two years of the opening of the application cycle: Minimum TOEFL score accepted is 95 or higher on the internetbased test (iBT).

In addition, you must submit a statement of purpose that describes your interest in both oral medicine and oral and craniofacial sciences through your ADEA PASS application.

Learn more about Oral Medicine Program admissions (https://dentistry.ucsf.edu/programs/post-grad/oral-medicine/admissions/).

# **Learning Outcomes**

Graduates will be expected to possess the didactic knowledge and clinical skill to diagnose and treat chronic, recurrent, and medically related disorders of the oral and maxillofacial region that constitute the practice of oral medicine. They will be expected to be proficient in the following areas:

- a. Physical and medical risk assessment in medically complex patients and making recommendations for impact and appropriate modifications of dental treatment
- b. Diagnosis and treatment of soft tissue lesions

- c. Performing biopsies of soft tissue intra-oral lesions
- d. Diagnosis and management of salivary gland dysfunction
- e. Understanding the pathophysiology and attainment of skills to diagnosis and manage chemosensory disorders
- f. Diagnosis and management of facial pain conditions
- g. Diagnosis and management of viral and fungal infections of the oral cavity
- h. Critical appraisal of research studies and to be competent in design/ execution of a clinical study

# **Additional Information**

#### **Program Faculty**

Find a program faculty list (https://dentistry.ucsf.edu/programs/post-grad/oral-medicine/faculty/) on the program website.

# **Degree Requirements**

All required courses, oral medicine core rotations, off-service rotations, oral medicine core didactics, and research project

#### **Core Courses**

Students take ORAL MED 489 Clinical Oral Medicine throughout the length of their residency. This clinical course provides comprehensive experience in treating oral medicine conditions. Students learn to apply knowledge of history-taking and differential diagnosis, utilize various diagnostic techniques such as biopsy, cytology and certain clinical pathology laboratory tests; interpret results, prescribe treatment and follow up. Expectations shift as student advances.

Course	Title	Units
Year 1		
Summer		
ORAL MED 489	Clinical Oral Medicine	4.5-9
	Units	4.5-9
Fall		
ORAL MED 489	Clinical Oral Medicine	4.5-9
	Units	4.5-9
Winter		
ORAL MED 489	Clinical Oral Medicine	4.5-9
	Units	4.5-9
Spring		
ORAL MED 489	Clinical Oral Medicine	4.5-9
ORAL RAD 400	Advanced Oral and Maxillofacial Radiology	1
	Units	5.5-10
Year 2		
Summer		
ORAL MED 489	Clinical Oral Medicine	4.5-9
	Units	4.5-9
Fall		
ORAL MED 489	Clinical Oral Medicine	4.5-9
	Units	4.5-9
Winter		
ORAL MED 489	Clinical Oral Medicine	4.5-9
	Units	4.5-9
Spring		
ORAL MED 489	Clinical Oral Medicine	4.5-9
	Units	4.5-9

#### Year 3 Summer

	Total Units	55-109
	Units	4.5-9
ORAL MED 489	Clinical Oral Medicine	4.5-9
Spring		
	Units	4.5-9
ORAL MED 489	Clinical Oral Medicine	4.5-9
Winter		
	Units	4.5-9
ORAL MED 489	Clinical Oral Medicine	4.5-9
Fall		
	Units	4.5-9
ORAL MED 489	Clinical Oral Medicine	4.5-9

# **Non-course Core Requirements**

- Introduction to the Principles and Practice of Clinical Research (offered by the NIH (https://ocr.od.nih.gov/courses/ippcr.html))
- Oral Medicine Seminar, Oral Medicine Journal Club, Oral Pathology Review Sessions
- · Off-Service Rotations
- Clinical Pathological Conferences (Oral Pathology and Oral and Maxillofacial Surgery)
- · Medical Grand Rounds
- · Dermatology Grand Rounds
- · Head and Neck Tumor Board Conference
- · Completion of History and Physical Exam Course (VA)

# Postgraduate Program in Orthodontics - Certificate

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/orthodontics/)

**Degree Offered:** Certificate **Program Leadership:** 

Christine Hong, DMD, MS, Program Director

**Admissions Inquiries:** 

Brennan Crilly, Assistant Director, Admissions and Outreach

# **Program Description**

This is a full-time 35 month course of study that culminates in a postgraduate certificate in orthodontics. Students simultaneously complete a master's in Oral and Craniofacial Sciences.

# **Admission Requirements**

To be eligible for admission to the program, you must meet the following requirements:

- · Hold a DDS, DMD degree or equivalent by the start of the program
- Applicants must Pass the National Board Dental Examination (NBDE),
  Part 1 or Integrated National Board Exam (INBDE) by the application
  deadline if you are currently in dental school. Applicants that have
  completed dental school must pass and submit NBDE Parts 1 and 2
  or INBDE by application deadline. Matched applicants must pass and
  submit NBDE Part 2 results by the start of the program if the NBDE
  Part 1/2 exam was taken.
- Take the Graduate Record Examination (GRE) and post scores on ADEA PASS application by application deadline
- Take the Test of English as a Foreign Language (TOEFL), if your native language is not English and you have not completed at least one year of college or university-level studies in the United States.

Learn more about the Orthodontics Program admissions (https://dentistry.ucsf.edu/programs/post-grad/orthodontics/admissions/).

# **Learning Outcomes**

- Graduate must become proficient in evidence-based orthodontic practice and conduct advanced scholarly activity culminating in a thesis.
- b. Graduate must be proficient in the diagnosis, development of a treatment plan, and the treatment of a variety of orthodontic and dentofacial problems to accepted standards.
- c. Graduate must understand foundational principles of orthodontics (growth and development, tooth movement and bone biology and metabolism, biomechanics, and imaging) and use appropriately in clinic care.
- d. Graduate must be familiar with aspects of practice management and the importance of effective people management and interaction.
- e. Graduate must be able to interact with other specialties to perform complex dental care.

## **Additional Information**

#### **Program Faculty**

 Find a program faculty list (https://dentistry.ucsf.edu/programs/postgrad/orthodontics/faculty/) on the program website.

## **Degree Requirements**

- Completion of all required courses, rotations and research project/ thesis
- First Year. Written comprehensive exam

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- · Second Year: ABO Part II Exam
- · Third Year: Graduation case presentations, Case-based scenario exam

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#### **Core Courses**

Course	Title	Units
Year 1		
ORTHODONT 440	Orientation to Clinical Orthodontics	1
ORTHODONT 441	Introduction to Orthodontic Techniques	1
ORTHODONT 442	Introduction to Diagnosis and Treatment Planning	1
ORTHODONT 443	Review of Classic Texts in Orthodontics: Proffit/ Graber	1
ORTHODONT 444A	Basics of Cephalometric Analysis	1
ORTHODONT 444B	Introduction to 3-D Imaging	1
ORTHODONT 445	Facial Growth & Development	1
ORTHODONT 447A	Fundamentals of Biomechanics	1
ORTHODONT 447B	Clinical Applications of Biomechanics	1
ORTHODONT 448	Orthodontic Journal Club and Literature Review	1
ORTHODONT 450	Treatment in Progress Seminar	1
ORTHODONT 453	Fundamentals of Clear Aligner Therapy	1
ORTHODONT 454	Emerging Orthodontic Products and Technologies	1
ORTHODONT 456	Mixed Dentition Diagnosis and Treatment Planning	1
ORTHODONT 457	Orthodontics and Orthognathic Surgery	1.5
ORTHODONT 458	Orthodontics and Prosthodontics	0.5
ORTHODONT 459	Orthodontic and Periodontic Treatment	0.5
ORTHODONT 462	Orthodontic Clinics	10
ORTHODONT 465	Surgical Orthodontics	1
ORAL RAD 400	Advanced Oral and Maxillofacial Radiology	1
Year 2	Units	28.5
ORTHODONT 448	Orthodontic Journal Club and Literature Review	1
ORTHODONT 449	Advanced Orthodontic Diagnosis and Treatment Planning	1
ORTHODONT 450	Treatment in Progress Seminar	1
ORTHODONT 452	Principles of Orthodontic Finishing	1
ORTHODONT 453	Fundamentals of Clear Aligner Therapy	1
ORTHODONT 454	Emerging Orthodontic Products and Technologies	1
ORTHODONT 456	Mixed Dentition Diagnosis and Treatment Planning	1
ORTHODONT 457	Orthodontics and Orthognathic Surgery	1.5
ORTHODONT 458	Orthodontics and Prosthodontics	0.5
ORTHODONT 459	Orthodontic and Periodontic Treatment	0.5
ORTHODONT 461	Orthodontic Research 1	1
ORTHODONT 462	Orthodontic Clinics	10
ORTHODONT 463	American Board Orthodontics Written Exam Literature Review	1
ORTHODONT 464	American Board of Orthodontics PH III Clinical Exam Review	1
ORTHODONT 465	Surgical Orthodontics	1
CRAN ANOM 419	Craniofacial Anomalies	0.5
Year 3	Units	24
ORTHODONT 448	Orthodontic Journal Club and Literature Review	1

	Total Units	70
	Units	17.5
ORTHODONT 462	Orthodontic Clinics	10
ORTHODONT 461	Orthodontic Research 1	1
ORTHODONT 459	Orthodontic and Periodontic Treatment	0.5
ORTHODONT 458	Orthodontics and Prosthodontics	0.5
ORTHODONT 457	Orthodontics and Orthognathic Surgery	1.5
ORTHODONT 455	Orthodontic Practice Management and Transitions	1
ORTHODONT 454	Emerging Orthodontic Products and Technologies	1
ORTHODONT 450	Treatment in Progress Seminar	1

# **Non-course Core Requirements**

Completion of the following seminars:

• Applied Ortho Techniques Seminar

Completion of course content in the following courses, which are taken in the parallel Oral and Craniofacial Sciences Master's program:

Code	Title	Units
DEN PUB HL 200	Ethical Considerations in Clinical & Public Health Dentistry	2
DEN PUB HL 210	Introduction to Research Methods and Design	2
CRAN ANOM 206	Etiology, Growth Characteristic and Management of Cleft Lip	2
CRAN ANOM 207	Etiology, Growth Characteristics & Management of CFA	2
OR CRA FAC 205	Advanced Topics in Pharmacology for the Dental Specialist	1
OR CRA FAC 283	Introduction of Biostatistics for Dentistry	2.5
ORAL MED 208	Oral Diseases	3
OR CRA FAC 204	Biology of Craniofacial Development and Tooth Movement	2

# Postgraduate Program in Pediatric Dentistry - Certificate

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/pediatric-dentistry/)

**Degree Offered:** Certificate **Program Leadership:** 

Thomas Tanbonliong, DDS, Program Director

**Admissions Inquiries:** 

Brennan Crilly, Assistant Director, Admissions and Outreach

# **Program Description**

UCSF offers a three-year certificate program in Pediatric Dentistry with co-enrollment in a Master of Science (MS) program in Oral and Craniofacial Sciences at UCSF or a Master of Public Health (MPH) program through San Jose State University.

Instruction in all areas of pediatric dentistry is provided through lectures, seminars, and clinical experiences in diverse clinical settings including specialty inpatient and outpatient clinics, hospital operating rooms and affiliated federally qualified health centers. Emphasis is placed on pediatric dentistry's relationship to all other areas of dentistry and medicine, including the medically complex and special health care needs patients. All trainees will complete a core curriculum in biostatistics, biomaterials, developmental biology, oral pathology, pharmacology, medical ethics and research designs and methods. Trainees are also exposed to different dental public health topics that impact providing oral health care to the most vulnerable population. This diverse curriculum develops trainees' ability to apply evidence-based principles to clinical decision-making and critical thinking.

The program's clinical component provides well-balanced experiences in treating healthy children, children with special health care needs, broad exposure to traumatic injuries, children with acute medical conditions, and interceptive orthodontics. Exposure to different pharmacological and non-pharmacological behavior guidance techniques is an integral part of the training. Trainees receive well-rounded and in-depth clinical experiences to prepare them for multiple scenarios, which enhances their ability to respond to and manage clinical situations that they will encounter in practice.

Clinical rotations include medical anesthesia and pediatric medicine. The presence of the divisions of orthodontics and craniofacial anomalies within the department leads to strong ties and education in these areas. Trainees are exposed to interceptive orthodontics from the beginning of the program. They also serve as teaching assistants in the pre-doctoral pediatric dental clinic, which further develops skills in clinical analysis and patient management.

Trainees must complete a research project, under faculty member's supervision that will result in presentations at state or national conferences.

# **Admission Requirements**

We accept five trainees into the three-year program (MATCH selection process) each year. To be eligible, you must meet the following requirements:

- Hold a DDS or DMD degree issued by a dental school accredited by the U.S. ADA's Commission on Dental Accreditation (CODA) by the start of the program.
- Applicants must Pass the National Board Dental Examination (NBDE), Part 1 or Integrated National Board Exam (INBDE) by the application deadline if you are currently in dental school. Applicants that have completed dental school must Pass and submit NBDE Parts 1 and 2 or INBDE by application deadline. Matched applicants must Pass and submit NBDE Part 2 results by the start of the program if the NBDE Part 1/2 exam was taken.
- A separate application for SJSU MPH program will be required if you elect to pursue the MPH program.

Learn more about Pediatric Dentistry Program admissions: https://dentistry.ucsf.edu/programs/post-grad/pediatric-dentistry/admissions (https://dentistry.ucsf.edu/programs/post-grad/pediatric-dentistry/admissions/)

## **Learning Outcomes**

Upon completion of the program, learners will be expected to:

- Demonstrate in-depth knowledge in the evidenced-based science that drives the practice of pediatric dentistry.
- b. Develop an appropriate comprehensive treatment plan that includes prevention, restorative, endodontic, surgical and orthodontic procedures for the healthy as well as the medically complex and special health care needs pediatric patient.
- c. Be able to manage pediatric dental patients using different behavior guidance modalities, from basic behavior management techniques to advanced behavior management techniques.
- Demonstrate knowledge and skill in the evaluation and medical management of pediatric patients who have acute and chronic medical conditions.
- e. Be able to function as an integral member of a medical interdisciplinary team.
- Demonstrate knowledge and skill in managing the needs of patients with different craniofacial anomalies.
- g. Demonstrate knowledge and clinical competence in management of traumatic injuries to primary and permanent dentitions.
- Demonstrate knowledge and awareness on dental public health issues affecting the pediatric and adolescent population, including those in underserved and disadvantaged communities.
- i. Be eligible to participate in the ABPD certification process.

# **Additional Information**

#### **Program Faculty**

Find a program faculty list (https://dentistry.ucsf.edu/programs/post-grad/pediatric-dentistry/faculty/) on the program website.

## **Degree Requirements**

Completion of all required courses, rotations and research project.

#### **Core Courses**

Course	Title	Units
Year 1		
PED DENT 406	Adv Pediatric Dentistry Seminar	1
PED DENT 407	Literature Review	1.5
PED DENT 409	Pediatric Dentistry Clinic	4-6

	Total Units	44.5-50.5
	Units	15.5-17.5
DEN PUB HL 430	Quality Improvement in Dental Care Settings	4.5
PED DENT 439	Pediatric Dentistry Clinical Preceptorship	2
PED DENT 416	Orthodontics for Pediatric Dentists	1
PED DENT 409.20	Conscious Sedation Clinic	0.5
PED DENT 409.10	Hospital Dental Practice	1
PED DENT 409	Pediatric Dentistry Clinic	4-6
PED DENT 407	Literature Review	1.5
PED DENT 406	Adv Pediatric Dentistry Seminar	1
Year 3	Units	11-13
PED DENT 439	Pediatric Dentistry Clinical Preceptorship	2
PED DENT 416	Orthodontics for Pediatric Dentists	1
PED DENT 409.20	Conscious Sedation Clinic	0.5
PED DENT 409.10	Hospital Dental Practice	1
PED DENT 409	Pediatric Dentistry Clinic	4-6
PED DENT 407	Literature Review	1.5
PED DENT 406	Adv Pediatric Dentistry Seminar	1
Year 2	Oilles	10 20
DEN PUB HL 440	Units	18-20
	Advanced Oral and Maxillofacial Radiology Introduction to Dental Public Health	•
PED DENT 429 OBAL BAD 400		1
PED DENT 416	Orthodontics for Pediatric Dentists  General Anesthesia Rotation	1 5
PED DENT 415	Introduction to Hospital Dentistry	1
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# **Non-course Core Requirements**

Completion of course content in the following courses, which are taken in the parallel Oral and Craniofacial Sciences Master's program:

Code	Title	Units
DEN PUB HL 200	Ethical Considerations in Clinical & Public Health Dentistry	2
DEN PUB HL 210	Introduction to Research Methods and Design (Exempt for MPH track)	2
CRAN ANOM 206	Etiology, Growth Characteristic and Management of Cleft Lip	2
CRAN ANOM 207	Etiology, Growth Characteristics & Management of CFA	2
OR CRA FAC 205	Advanced Topics in Pharmacology for the Dental Specialist	1
OR CRA FAC 283	Introduction of Biostatistics for Dentistry	2.5
ORAL MED 208	Oral Diseases	3
RESTOR DEN 213	Chemical Aspects of Dental Caries	2
OR CRA FAC 204	Biology of Craniofacial Development and Tooth Movement (Optional)	2

# Postgraduate Program in Periodontology - Certificate

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/periodontology/)

**Degree Offered:** Certificate **Program Leadership:** 

Guo-Hao (Alex) Lin, DDS, MS, Program Director

**Admissions Inquiries:** 

Brennan Crilly, Assistant Director, Admissions and Outreach

# **Program Description**

The Postgraduate Program in Periodontology is a three-year course of study which culminates in a postgraduate certificate in periodontology. Students simultaneously complete a master's in oral and craniofacial sciences

# **Admission Requirements**

To be eligible for admission to the Postgraduate Program in Periodontology, you must meet the following requirements:

- Hold a DDS or DMD degree or equivalent by the start of the program.
- Applicants must Pass the National Board Dental Examination (NBDE),
   Part 1 or Integrated National Board Exam (INBDE) by the application
   deadline if you are currently in dental school. Applicants that have
   completed dental school must Pass and submit NBDE Parts 1 and 2
   or INBDE by application deadline. Matched applicants must Pass and
   submit NBDE Part 2 results by the start of the program if the NBDE
   Part 1/2 exam was taken.
- Take the Test of English as a Foreign Language (TOEFL), if your native language is not English and you have not completed at least one year of college or university-level studies in the United States. Scores/ results must be within two years of the opening of the application cycle: Minimum TOEFL score accepted is 90 or higher on the internetbased test (iBT).

Learn more about the Periodontology Program admissions (https://dentistry.ucsf.edu/programs/post-grad/periodontology/admissions/).

# **Learning Outcomes**

- A. Clinical objectives for a specialty certificate.
  - 1. Given a clinic patient, the student will:
    - Be able to take a thorough medical/dental history and perform a complete and accurate oral examination.
    - Formulate a diagnosis, prognosis, and comprehensive treatment plan. The treatment plan must utilize currently accepted therapeutic procedures.
    - Provide moderate sedation to patients who may require additional relief of anxiety, discomfort, and/or pain.
    - d. Write and describe orally a rationale for the indicated periodontal therapy.
  - Provide moderate sedation to patients who may require additional relief of anxiety, discomfort, and/or pain.
- B. Given a patient with problems other than periodontal, the student will:
  - a. Recognize pathology of the head and neck and make referrals for the appropriate treatment when indicated.

- Consult and work effectively with other health professionals.
   Prior to consultation, the student should write a description of the problems to be evaluated.
- c. Incorporate information derived from consultations into treatment plans.
- C. Given clinic patients, the student must deliver appropriate periodontal therapy to the satisfaction of the clinical instructors.
- D. Given treated clinic patients, the student will evaluate whether treatment was successful or not, to the satisfaction of the clinical instructors.
- E. The student will submit complete documentation for all patients receiving complex periodontal therapy, including a narrative summary, diagnostic casts, and clinical photographs.
- F. The student must be able to state what is known about the etiology and pathogenesis of periodontal diseases, using modern concepts of microbiology, immunology, and pathology. The student should be able to apply this knowledge to the periodontal management of patients.
- · Didactic periodontology objectives for certificate.

#### The student must:

- Be able to critically evaluate the dental literature and write a literature review paper, based on a topic agreed upon with the course instructor.
- Successfully complete all course requirements for registered courses with a grade of "P" or "C" or better.
- Conduct a research project of sufficient depth and importance that the written report will be suitable for submission to a refereed professional journal for publication.

## **Additional Information**

#### **Program Faculty**

• Find a program faculty list (https://dentistry.ucsf.edu/programs/post-grad/periodontology/faculty/) on the program website.

## **Degree Requirements**

Completion of all required courses, rotations and independent research project.

## **Core Courses**

Course	Title	Units
Year 1		
PERIODONT 411.01	Introduction to Postgraduate Periodontology, Part 1	1.5
PERIODONT 411.02	Introduction to Advanced Periodontology, Part 2	1.5
PERIODONT 411.03	Introduction to Advanced Periodontology, Part 3	1.5
PERIODONT 407.10	Periodontal Education and Communications Strategies	1
PERIODONT 413	Contemporary Periodontal Topics	1
PERIODONT 414	Sedation in Dental Practice (1st or 2nd year)	4
PERIODONT 415	Sedation in Dental Practice: AAP,Grand Rounds,Emergency Prot	2
PERIODONT 419.01	Clinical Periodontics	6
PERIODONT 419.02	Clinical Periodontics	6
PERIODONT 419.03	Clinical Periodontics	6
PERIODONT 419.04	Clinical Periodontics	6
PERIODONT 432	Periodontology Literature Review	2
ORTHODONT 459	Orthodontic and Periodontic Treatment	0.5
ORTHODONT 460	TMD and Orofacial Pain for Orthodontists	1
ORAL RAD 400	Advanced Oral and Maxillofacial Radiology	1

INTERDEPT 482	Dental Implantology	1
	Units	42
Year 2		
PERIODONT 414	Sedation in Dental Practice (1st or 2nd year)	4
PERIODONT 416	Sedation in Dental Practice: Clinical Care	2
PERIODONT 423	Advanced Periodontal Topics	1
PERIODONT 429.01	Advanced Clinical Periodontics	6
PERIODONT 429.02	Advanced Clinical Periodontics	6
PERIODONT 429.03	Advanced Clinical Periodontics	6
PERIODONT 429.04	Advanced Clinical Periodontics	6
PERIODONT 432	Periodontology Literature Review	2
ORTHODONT 459	Orthodontic and Periodontic Treatment	0.5
INTERDEPT 482	Dental Implantology	1
	Units	34.5
Year 3		
PERIODONT 416	Sedation in Dental Practice: Clinical Care	2
PERIODONT 431	Periodontal Practice Management	1
PERIODONT 433	Implant Treatment Planning and Surgery	1
PERIODONT 439.01	Advanced Clinical Implantology	6
PERIODONT 439.02	Advanced Clinical Implantology	6
PERIODONT 439.03	Advanced Clinical Implantology	6
PERIODONT 439.04	Advanced Clinical Implantology	6
ORTHODONT 459	Orthodontic and Periodontic Treatment	0.5
INTERDEPT 482	Dental Implantology	1
	Units	29.5
	Total Units	106

# **Non-course Core Requirements**

Completion of course content in the following courses, which are taken in the parallel oral and craniofacial sciences master's program:

Code	Title	Units
DEN PUB HL 200	Ethical Considerations in Clinical & Public Health Dentistry	2
DEN PUB HL 210	Introduction to Research Methods and Design	2
CRAN ANOM 206	Etiology, Growth Characteristic and Management of Cleft Lip	2
CRAN ANOM 207	Etiology, Growth Characteristics & Management of CFA	2
OR CRA FAC 205	Advanced Topics in Pharmacology for the Dental Specialist	1
OR CRA FAC 221	Current Concepts in Oral Biology	2.5
ORAL MED 208	Oral Diseases	3
RESTOR DEN 213	Chemical Aspects of Dental Caries	2
OR CRA FAC 283	Introduction of Biostatistics for Dentistry	2.5
OR CRA FAC 224	Host Response	2
OR CRA FAC 204	Biology of Craniofacial Development and Tooth Movement	2
Completion of History and Physical Exam Course (VA)		

# **Rehabilitation Science (PhD)**

Visit program website. (https://ptrehab.ucsf.edu/rehabilitation-science-phd/)

# Degree Offered: PhD Program Leadership:

Richard Souza, PT, PhD, Program Director, Musculoskeletal Biomechanics

Myriam Chaumeil, PhD, Diversity, Equity, & Inclusion Chair, Neuroscience Lead

#### **Admissions Inquiries:**

Mike Tressel, Admissions and Recruitment Specialist

# **Program Description**

The Rehabilitation Science PhD program is designed to train aspiring scientists to propel the field of rehabilitation science forward. We pride ourselves on using innovative and transformational approaches to tackle important clinical problems, from utilizing novel animal models to study the impacts of aging on functional mobility, to developing new tools for monitoring and enhancing physical activity in various patient populations. Our program, offered in collaboration with faculty from San Francisco State University, takes a non-traditional approach with a broad perspective of basic and clinical sciences in the areas of musculoskeletal and neurological rehabilitation. Backed by outstanding faculty, state-of-the-art research facilities, and world-class clinical expertise, the program is a preeminent center of learning and discovery in rehabilitation science.

#### **Specialization Areas**

A central goal of the program is to capitalize on the interdisciplinary nature of UCSF and offer an academic experience that integrates multiple disciplines. PhD students select one of the following specialized training areas:

#### **Musculoskeletal Biomechanics**

Musculoskeletal biomechanics is one of the foundations of rehabilitation science. Within this specialization, new investigators are trained on the latest advancements in the field and are prepared for research careers in academia and industry.

#### Neuroscience

The neuroscience track offers two pathways: a clinically focused pathway addressing neural injury and neurodegenerative disease, as well as a lab-based translational research pathway. New investigators in the lab utilize clinically relevant models of neurodegeneration to address mechanisms underlying activity-based restoration of function.

# **Admission Requirements**

#### **General Requirements and Prerequisites**

A bachelor's, master's or doctoral degree in physical therapy, kinesiology, neuroscience, exercise physiology, biomedical engineering, or a related rehabilitation science or professional field is required. Additionally, applicants must have a grade point average of 3.0 or greater (or its equivalent).

Because of the broad and varied interests of Rehabilitation Science PhD applicants, prerequisite courses vary depending on each applicant's area of study. Applicants are expected to have previous research experience through their undergraduate training or in post-graduate work. Applicants

are expected to have completed preparatory coursework in the following areas:

- Biology (minimum 2 semesters)
- · Chemistry (minimum 2 semesters)
- · Physics (minimum 2 semesters)
- · Mathematics (through calculus)
- · Statistics
- Anatomy
- Physiology

Note that applicants are not required to be a physical therapist or possess an academic degree in physical therapy.

#### CV and Statement of Purpose

Applicants must submit their CV and a Statement of Purpose (3 to 5 pages) discussing their background, interests, research goals, purpose in applying for graduate study, and plans for the future. Applicants must indicate what they hope to gain from being a doctoral student in rehabilitation science, how their interests fit with those of the program's faculty, and any other pertinent information supporting their application and qualifications.

#### **Letters of Recommendation**

Applicants must submit three letters of recommendation from individuals who know them well and can speak to their ability to succeed in graduate school.

#### International Students

In addition to meeting the same admissions requirements domestic students meet, international applicants from non-English speaking countries must also demonstrate proficiency in English. Please visit the International Admission Requirements website (https://graduate.ucsf.edu/admission/intl-admission-requirements/) to learn more about satisfying the English proficiency requirements and about submitting international transcripts.

# **Learning Outcomes**

The objective of this program is to develop independent investigators in rehabilitation science with innovative, multidisciplinary approaches to the field. The methods and strategies used for dissertation work will vary depending on the student's focus and needs. The core curriculum is designed to provide broad training in rehabilitation science. Elective and lab activities will be tailored to create an individualized plan for each trainee.

# **Additional Information**

The Rehabilitation Science PhD program is offered by the UCSF Graduate Division, administered by the UCSF School of Medicine, and delivered by faculty members in the UCSF School of Medicine and at San Francisco State University. The program office is located at the UCSF Mission Bay campus. Visit the program website (https://ptrehab.ucsf.edu/rehabilitation-science-phd/) for more information.

#### **Program Faculty**

 Find a program faculty list (https://ptrehab.ucsf.edu/phd-faculty/) on the program website.

#### **Career Outcomes**

Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/) on the Graduate Division website.

# **Degree Requirements**

- Minimum GPA of 3.0
- · Pass all core courses and required activities
- Complete six quarters in residence, including a minimum of three registered quarters after advancement to candidacy
- · Pass the qualifying examination
- Complete and submit a dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

## **Core Courses**

#### **Neuroscience Track**

Code	Title	Units
Core Courses		
REHAB SCI 200A	Laboratory Rotation I	3
REHAB SCI 200B	Laboratory Rotation II	3
REHAB SCI 200C	Laboratory Rotation III	3
REHAB SCI 201	Introduction to Rehabilitation Science	2
REHAB SCI 202	Gross and Regional Anatomy	1
REHAB SCI 203	Doctoral Colloquium	1
REHAB SCI 204	Application of Principles of Learning	3
GRAD 202	Racism in Science	3
GRAD 214	Responsible Conduct of Research and Rigor & Reproducibility	1.5
BIOSTAT 200	Biostatistical Methods in Clinical Research I	3
BIOSTAT 216	Machine Learning in R for the Biomedical Sciences (or other appropriate statistics course)	3
Foundational Courses		
NEUROSCI 201A	Basic Concepts in Cellular and Molecular Neuroscience	5
NEUROSCI 201B	Basic Concepts for Cellular and Developmental Neuroscience	4
ANATOMY 207	Neuroscience (Audit)	3
Total Units		38.5

#### **Biomechanics Track**

Code	Title	Units
Core Courses		
REHAB SCI 200A	Laboratory Rotation I	3
REHAB SCI 200B	Laboratory Rotation II	3
REHAB SCI 200C	Laboratory Rotation III	3
REHAB SCI 201	Introduction to Rehabilitation Science	2
REHAB SCI 202	Gross and Regional Anatomy	1
REHAB SCI 203	Doctoral Colloquium	1
REHAB SCI 204	Application of Principles of Learning	3
GRAD 202	Racism in Science	3

# Sociology (PhD)

Visit program website. (https://sociology.ucsf.edu/)

**Degree Offered:** PhD **Program Leadership:** 

Kristen Harknett, PhD, Program Director

**Admissions Inquiries:** 

Brandee Woleslagle Blank, Academic Program Manager

# **Program Description**

The Sociology PhD program at UCSF offers an exceptionally deep curriculum focused on the sociology of health, illness, biomedicine, and health care systems. The program is one of the most highly ranked graduate programs in sociology nationwide: the National Research Council in 2010 ranked the UCSF program 6th-20th out of a field of 118 sociology doctoral programs. The program features extensive training in both general sociological theory and the sociology of health, illness, and medicine; it also provides rigorous methodological training in both quantitative and qualitative research methods, including hands-on learning through the conduct of original research. Commitments to social justice and reducing health inequalities pervade the curriculum and the research of faculty and students.

#### **Faculty**

Faculty for the Sociology program include five core Sociology faculty as well as 36 Department of Social and Behavioral Sciences (SBS) faculty members, including emerita and adjunct professors.

The Sociology Program is part of a network of social science communities at UCSF, including the Institute for Health & Aging (https://nursing.ucsf.edu/academics/departments/institute-health-aging/), the Center for Health and Community (https://chc.ucsf.edu/), and the Social and Population Sciences Research Consortium (https://socpop.ucsf.edu/). The program also has key relationships with such Bay Area intellectual communities as the Science & Justice Research Center (https://scijust.ucsc.edu/) (at UC Santa Cruz), and the Center for Science, Technology, Medicine & Society (https://cstms.berkeley.edu/) (at UC Berkeley).

#### **Specializations**

- · Race, class, gender and health
- · Social policy and health policy
- Social determinants of health, including community and individual exposures to violence, incarceration, and work conditions

Additionally, faculty have expertise in aging, science and technology studies, mental health, and health disparities.

The Sociology program office is located at the Mission Bay campus. Visit the program website (https://sociology.ucsf.edu/) for more information.

The Sociology program is offered by the UCSF Graduate Division, administered by the Department of Social and Behavioral Sciences (SBS) in the UCSF School of Nursing, and delivered by faculty members in the UCSF School of Nursing.

# **Admission Requirements**

Post baccalaureate students with backgrounds in the social sciences, in certain humanities such as history or philosophy, and in the health professions such as public health, nursing, psychology, or social work.

## **Learning Outcomes**

- a. Students will develop a broad understanding of and capacity to apply sociological theories to empirical questions and disciplinary debates.
- Students will develop in-depth understanding and knowledge of the sociological dimensions of health, illness, medicine, health care, and health policy.
- c. Students will demonstrate understanding of and ability to use qualitative and quantitative research methods, at a basic level in either qualitative or quantitative methods and at a more advanced level in the other.
- d. Students will demonstrate the capacity to conduct independent and original research, in an ethical and responsible manner.
- Students will develop the oral and written communication skills to convey sociological arguments and the findings of research to a variety of audiences.

## **Additional Information**

#### **Program Faculty**

 Find a program faculty list (https://sociology.ucsf.edu/faculty/) on the program website.

#### **Career Outcomes**

 Find career outcomes and other data on PhD programs (https://graduate.ucsf.edu/program-statistics/#career) on the Graduate Division website.

# **Degree Requirements**

- · Minimum GPA of 3.0
- · All core courses and required activities taken and passed
- Six quarters in residence including a minimum of three registered quarters after advancement to candidacy
- · Pass qualifying examinations
- · Completion and submission of the dissertation
- For additional details, please see: graduate.ucsf.edu/phd-degree (https://graduate.ucsf.edu/phd-degree/)

#### **Core Courses**

Coursework to be completed in first two years:

Code	Title	Units
<b>Social Theory Sequence</b>	(offered in odd academic years)	
SOCIOLOGY 212A	Sociological Theory: Classical	5
SOCIOLOGY 212B	Sociological Theory: Contemporary	5
SOCIOLOGY 212C	Sociological Theory: Symbolic Interactionism	5
Medical Sociology Seque	ence (offered in even academic years)	
SOCIOLOGY 207	Sociology of Health & Medicine	5
SOCIOLOGY 208	Constructionist & Interactionist Persp. on Health & Illness	5
SOCIOLOGY 260	Policy and Politics of Health	5
Quantitative Methodolog	y Sequence (in a student's first year)	
SOCIOLOGY 289A	Advanced Quantitative Research Methods I	4
SOCIOLOGY 289B	Advanced Quantitative Research Methods II	5

Qualitative Methodologyear)	gy Sequence (in a student's first & second	
NURSING 212A	Qualitative Data Collection & Ethics (Spring of first year)	2
SOCIOLOGY 285A	Qualitative Methods I (Fall of second year)	5
SOCIOLOGY 285B	Qualitative Methods II (Winter of second year)	5
Total Units		51

# Area of Emphasis - Electives by Advisement

Code	Title	Units
Optional but Recommend	led	
Professional Developmer optional in subsequent ye	nt Seminar (required year 1 if on offer; ears)	
SOCIOLOGY 237	Proposal Preparation Seminar (year 1)	1
SOCIOLOGY 215	Dissertation Proposal Seminar (year 2)	1
SOCIOLOGY 251	Professional Development Seminar	1

# **Non-course Core Requirements**

Pass qualifying exams. Dissertation and dissertation defense.

# **Translational Medicine (MTM)**

Visit program website. (https://uctranslationalmedicine.org/)

Degree Offered: Master of Translational Medicine (MTM)

Program Leadership:

Shuvo Roy, PhD, Faculty Director

Verna Manty Rodriguez, Executive Director

Admissions Inquiries: mtm@berkeley.edu

# **Program Description**

The Master of Translational Medicine program (MTM) trains students to solve fundamental problems in healthcare technology innovation. Within the MTM, trainees gain experience solving real world problems in a creative, multi-disciplinary team setting.

A joint program between UC San Francisco and UC Berkeley, the MTM provides a unique combination of engineering, business, and clinical expertise. The program revolves around a professionally oriented, teambased capstone project experience with mentorship from academic leaders, clinical specialists, and industry professionals. Students join the learning communities on both campuses, taking elective classes in engineering, business, public health, and more.

#### **Faculty**

The faculty director of the MTM program is Dr. Shuvo Roy. Numerous other faculty participate for specific courses or modules.

#### **Career Outcomes**

MTM graduates pursue several career paths after graduation, including as medical device engineers, biotech scientists, regulatory consultants, clinical trialists, entrepreneurs in start-ups, and other areas involved in bringing new health innovations to patients.

While the MTM is intended as a terminal degree, some graduates continue their education, typically pursuing MD or PhD degrees.

A number of MTM students are taking time out of their medical education, residency, or clinical practice to develop the skills for translating new ideas into products and processes for improved clinical outcomes.

The MTM program office at UCSF is located in Byers Hall on the Mission Bay campus. (At UC Berkeley, the office is in Stanley Hall.)

The MTM program is offered by the UCSF Graduate Division, administered jointly by the UCSF Department of Bioengineering and Therapeutic Sciences and the UC Berkeley Bioengineering Department, and delivered by faculty members in the UCSF schools of medicine and pharmacy and in UCB's College of Engineering.

# **Learning Outcomes**

This program is designed to train students in applying translational research and engineering approaches to solve fundamental problems in healthcare delivery. The program is focused on addressing real-world problems in a creative, interdisciplinary team setting.

The MTM program is an intense year of coursework designed around the main content themes of engineering, clinical needs and strategies, and business, entrepreneurship and technology. The centerpiece of the curriculum is the capstone project (https://uctranslationalmedicine.org/

projects/) course. Complementing 10 months of work with external mentors, this class meets regularly to provide peer support, introduce concepts in translational medicine, and develop presentation skills.

#### **Additional Information**

#### **Career Outcomes**

Find career outcomes and other data on master's programs (https://graduate.ucsf.edu/mtm-statistics/) on the Graduate Division website.

## **Degree Requirements**

Completion of core and elective classes in appropriate topical areas:

- · 15 units of technical courses
- · Nine units of courses on clinical needs and strategies
- · 12 units of business and entrepreneurship courses

The units from BIOENG 296 and BIOENG 290 (UCB) can be assigned to different topical areas depending on the individual student's educational plan.

Completion of an integrative capstone project.

Presentation at MTM final symposium.

#### **Core Courses**

Code	Title	Units
BIOENGR 270	Translational Challenges: Diagnostics, Devices &Therapeutics	2
BIOENGR 260	Translational Challenges in Medicine	1
BIOENGR 283	Designing Clinical Research for Industry	2
BIOENGR 285	Health Care Finance & Economics	2
BIOENGR 296	MTM Capstone Project (UCSF) (Enroll FA,WI,SP)	9
Total Units		16

#### Core Courses from UCB

http://guide.berkeley.edu/courses/bio\_eng/ http://guide.berkeley.edu/courses/engin/

Course	Title	Units
Fall		
ENGIN 270A	Organizational Beha	1.5
ENGIN 270B	Tech Management	1.5
BIOENG 291	Project Management for Translational Medicine	3
	Units	6
Spring		
BIOENG 280	Ethical and Social Issues	1
BIOENG 290	Adv Topics in Bioe	3
Select one of the following: (all courses are 1.5 units)		1.5
ENGIN 270D	Entrepreneurship	
ENGIN 270E	Technology Strategy	
ENGIN 270F	Data Analytics	
ENGIN 270G	Marketing Prod Mgmt	
ENGIN 270H	Acctng & Finance	
ENGIN 270I	Tech Strategy	
ENGIN 270J	Industry Analysis	
ENGIN 270K	Coaching for High Performance Teams	
ENGIN 270L	Global Leadership Expertise	
ENGIN 270M	Professional Ethics in Technology, Law and Business	

	Total Units	11.5
	Units	5.5
ENGIN 270Q	The Power of Diversity and Inclusion for Engineering Leaders	
ENGIN 270P	Power and Persuasion for Engineering Leadership	
ENGIN 270N	Innovation Management	
ENGIN 270N	Innovation Management	

# **Non-course Core Requirements**

- Capstone project
- Participation in final symposium

# **UCSF/UC Berkeley Joint Medical Program**

Visit program website. (https://publichealth.berkeley.edu/academics/joint-medical-program/)

Degree Offered: MS (UC Berkeley) / MD (UC San Francisco)

**Program Leadership:**Jyothi Marbin, MD, Director

Leanna W. Lewis, EdD, MSW, LCSW, Associate Director

**Admissions Inquiries:** 

jmp\_admissions@berkeley.edu

# **Program Description**

The UC Berkeley-UCSF Joint Medical Program (JMP) is a five-year graduate/medical degree program. The pre-clerkship years are spent at UC Berkeley, engaging in a leading-edge integrated problem-based-learning medical curriculum while simultaneously earning a master's degree (MS) in the Health and Medical Sciences at UC Berkeley's School of Public Health. After 2.5 years at UC Berkeley, our students move across the bay to UCSF to finish their medical education and receive their medical doctorate (MD).

## **Admission Requirements**

To apply to the UCB-UCSF Joint Medical Program (JMP), applicants start by:

- a. Applying to UCSF via AMCAS
- Receiving and accepting an invitation for a UCSF secondary application
- Following the instructions on the UCSF secondary application by checking the JMP box to indicate interest in the JMP
- d. Submitting additional JMP-specific application materials as instructed

After checking the JMP box, applicants will be prompted to provide additional JMP-specific materials, including three short essay questions. Only applicants who have checked the JMP box on their UCSF secondary application will be considered for JMP admission.

Learn more about JMP program admissions (https://publichealth.berkeley.edu/academics/joint-medical-program/admissions/).

# **Degree Requirements**

#### **JMP Course Requirement Overview**

The UC Berkeley-UCSF Joint Medical Program (JMP) is a pioneer in teaching medicine in the broader context of public health and health systems.

The goal of the JMP's curriculum is to train physician "changemakers" who approach medicine with a broad trans-disciplinary understanding of the social and structural determinants of health, health systems, community health, and health equity.

This curriculum will not only support your research but also provide you with a critical perspective of the context in which you will practice medicine.

The following outline describes the course requirements for the JMP curriculum with a minimum of 29 credit units taken for your master's in addition to the medical curriculum.

#### **Core Courses**

The first set of course requirements listed below are the courses taken at UC Berkeley during the first 2.5 years of the program.

UC Berkeley Course Catalog guide.berkeley.edu/courses (http://quide.berkeley.edu/courses/)

#### JMP Master's Curriculum

Code	Title	Units
HMS MS curriculum, minimum 29 units		Units
PH 200	This foundational course in Public Health is required for all students in their first semester at the JMP	1
HMEDSCI 261 series: Master's Seminar	There are five master's seminars: 261A (4 units, first semester), 261B (2 units, second semester), 261C (3 units, third semester), 261D (3 units, fourth semester), and 261E (3 units, fifth semester).	15
HMEDSCI 296 and 297	HMS 296 (4 units total) gives students credit for their work with their mentors. HMS 297 (4 units total) is the same, but it refers to summer work (credit given in the following Fall semester).	8
PBHLTH 250A, 250B, or W250	Epidemiology Course, 3 units minimum	3
PB HLTH 224E	Health Care Quality	3
PB HLTH 215	Anti-Racist and Racial Justice Praxis	3
Research Methods	One Research Methods course in the methods each student will use for their scholarly work; 2-4 units	3
Content Course	One content course elective in the student's chosen area of scholarship; 2-4 units	3
Total Required Minimum Units		

**Note:** Biostatistics or an equivalent course is not required, but it is highly recommended for students doing quantitative master's projects.

#### JMP Medical Curriculum

The following describes the course requirements for the medical component of the JMP curriculum:

Code	Title	Units
HMEDSCI 200	(10 credits X 5 semesters)	50
HMEDSCI 216/220	(4 credits X 5 semesters)	20
Total Units		70

After 2.5 years at UC Berkeley, students transition to the UCSF campus to complete their Foundations 2 and Career Launch coursework.

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## **Anesthesia Residency**

Visit program website. (https://anesthesia.ucsf.edu/residency-program-ucsf-department-anesthesia/)

#### Program Leadership:

Kristina Sullivan, MD, Program Director

#### **Administrative Staff:**

Cindy Chin, Program Administrator Jannot Ross, Program Administrator Serena Smith, Program Administrator

#### Address:

UCSF Anesthesia Residency Program School of Medicine University of California, San Francisco 513 Parnassus Avenue, S436 San Francisco, CA 94143

#### Phone:

415.476.3235

#### Email:

anesresidency@ucsf.edu

## **Program Description**

#### Introduction

The UCSF Anesthesia Residency Program is a 4-year ACGME-accredited Residency Program. For more than half a century, the Anesthesia Residency has provided outstanding clinical training and produced leaders in our field. The demands of modern health care have led to increasing complexity in the perioperative and critical care environments. Our program has evolved to meet these challenges, and our commitment to excellence in residency training remains as strong as ever.

## **Educational Program (Basic Curriculum)**

#### The Clinical Base (Intern) Year

For some, the experience as a UCSF anesthesia resident begins with the interdisciplinary internship program at UCSF. This rigorous yet richly rewarding year includes intensive training in internal medicine, surgery, critical care, neurology, and emergency medicine alongside some of the finest physicians in the country. The year culminates with a month of anesthesia, celebrating your entry into clinical work in our department. Anesthesia interns at UCSF are expected to sit for the nationwide In-Training Examination in the spring along with their senior colleagues.

#### The CA-1 Year

The CA-1 year centers on intraoperative training in anesthesiology. You will begin the first Clinical Anesthesia year with a month-long period of one-on-one faculty supervision, allowing tailored training with faculty specifically selected for their teaching abilities. Through the month of July, CA-1 residents are relieved from OR duties by 2 p.m. every Tuesday and Thursday for afternoon lectures covering core concepts in anesthesia. CA-1 residents train in a wide variety of settings, including the administration of anesthesia for general surgery, OHNS, orthopedics, ambulatory surgery, acute pain medicine, trauma, evaluation of patients in the PREPARE (preoperative) clinic, ICU care, and post-op care in the PACU. Progress in acquiring medical knowledge is tested periodically with Anesthesia Knowledge Tests on Day 1, Month 1, Month 6, as well as the nationwide In-Training Examination (ITE) in the spring.

#### The CA-2 Year

During your CA-2 year, you will undergo intensive training in a variety of anesthesia subspecialty areas, including anesthesia for cardiac

and thoracic surgery, obstetrics, neurosurgery, acute and chronic pain, regional anesthesia, pediatrics, and critical care. Educational sessions continue in the form of Wednesday Grand Rounds or lectures tailored to each residency class, small-group case-based sessions led by volunteer faculty, and daily intraoperative teaching sessions (ongoing, informal). To celebrate the midway point in your training, a weekend CA-2 retreat is held in the fall. For those interested in pursuing fellowship training, the fall/winter of CA-2 year is the time when many residents prepare their applications for fellowship training programs.

#### The CA-3 Year

During the CA-3 year, you will return to the general OR as a senior resident to provide anesthesia and intensive care with increasing autonomy. Specialty rotations include adult cardiac (at Kaiser San Francisco), TEE, thoracic and vascular surgery, regional anesthesia, ZSFG night team leader, and critical care. Whenever possible, senior residents care for patients undergoing the most complex procedures, such as liver transplant and heart and lung transplants. CA-3s have three months of "Selectives" with an array of options including pediatric cardiac, regional anesthesia at the Orthopaedic Institute, and additional training in OB, pediatrics, neurosurgery, etc. As residents have become increasingly involved with the UCSF Pathways Program, some now participate in several months of intensive study in Health Professions Education, Global Health, the interactions between Health and Society, etc. Residents participating in Innovative Residency Tracks (as Critical Care or Research Scholars) may extend their training into a "CA-4 year" as they acquire specialized additional skillsets. Residents with strong research interests can consolidate their clinical training into 2.5 years to participate in 6 months of research during their final year under the guidance of a faculty research mentor.

#### **Detailed Instructional Schedule**

- · General Anesthesia in the OR
- · Neuro Anesthesia
- · Regional Anesthesia
- · Pediatric Anesthesia
- · OB Anesthesia
- · Trauma Anesthesia
- · Vascular Anesthesia
- · Cardiac Anesthesia
- · Adult Cardiothoracic Anesthesia
- · Pediatric Cardiac Anesthesia
- · Prepare Clinic
- · Pre-op Anesthesia
- · Advance Anesthesia in the OR

## Instructors/Resources

The UCSF Anesthesia Residency Program has a wealth of clinical and research faculty distributed throughout UCSF and its associated hospitals listed below. Education within the program and supervision of trainees are the focus of the majority of the faculty.

#### **Teaching Staff**

- · Kristina Sullivan, MD, Program Director, Anesthesia
- · John Turnbull, MD, Associate Program Director, Anesthesia
- · Gabriel Sarah, MD, Associate Program Director, Anesthesia
- · Manuel Pardo, MD, Vice Chair of Education, Anesthesia
- · Wendy Smith, MD, Internship Director, Anesthesia

- · Matthias Braehler, MD, Clinical Professor, Anesthesia
- · Kris Breyer, MD, Associate Clinical Professor, Anesthesia
- · Lundy Campbell, MD, Clinical Professor, Anesthesia
- · Joyce Chang, MD, Associate Clinical Professor, Anesthesia
- · Lee-lynn Chen, MD, Clinical Professor, Anesthesia
- · Marla Ferschl, MD, Clinical Professor, Anesthesia

#### Instructional Facilities

The main facilities, which offer a wide depth and breadth of clinical and research experiences and training, where the trainees practice and see patients are:

- UCSF Helen Diller Medical Center at Parnassus Heights, San Francisco, California
- Mission Bay (UCSF Benioff Children's Hospital, UCSF Betty Irene Moore Women's Hospital, UCSF Bakar's Cancer Center), San Francisco, California
- · Mt. Zion Hospital, San Francisco, California
- · Zuckerberg San Francisco General Hospital, San Francisco, California
- · Veterans Affairs Medical Center, San Francisco, California
- · Kaiser San Francisco, San Francisco, California
- UCSF Benioff Children's Hospital, Oakland, California
- · UCSF Orthopedic Institute, San Francisco, California

## **Entrance Requirements**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME eligibility policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

The program specific policies may be found at: anesthesia.ucsf.edu/education-program-ucsf-department-anesthesia (https://anesthesia.ucsf.edu/education-program-ucsf-department-anesthesia/).

## **Policies**

### **Enrollment Policy**

In accordance with ACGME requirements for graduate medical education, UCSF School of Medicine GME policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Credit Evaluation Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME supervision, evaluation, and other policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf).

The program specific supervision, communication/escalation, and evaluation policies address the different levels of training and may be found at: anesthesia.ucsf.edu/how-apply (https://anesthesia.ucsf.edu/how-apply/). Each program has a multisource learner assessment

program in accordance with ACGME, UCSF GME, and program policies and requirements.

All faculty and trainees are educated about fatigue in GME training and adept at recognizing fatigue in themselves and others. In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME fatigue mitigation policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Attendance Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME leave policy, which addresses vacation, sick, parental, and other leave, applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

- Absence: Refer to the GME leave policy in the 2022-2023
   Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).
- Tardiness: Fellows are expected to contact their site preceptor by 8:30 a.m. to indicate if they will be late or absent that day for any reason, notify the Chief resident, and to document absence in the MedHub system.
- Interruption for Unsatisfactory Attendance: Interruption for unsatisfactory attendance is address through the established UCSF GME disciplinary mechanisms noted elsewhere in this document.
   Fellows taking more than the allowed vacation/sick time may be required to extend their fellowship past the normal graduation date.
- Cutting Classes: Fellows must attend a minimum of 70% of conferences during their fellowship and unsatisfactory attendance will be reviewed at the semi-annual Clinical Competency Committee. If needed the fellow will be put on a remediation plan until the situation is rectified.
- Make-up Work: Missed conferences that have been recorded will be available for later viewing. Other missed conferences are made up at the discretion of the program director.
- Leave of Absence: Refer to the GME leave policy in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf).

#### **Policy on Academic Progress**

The medical education of physicians to practice independently is experiential and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge and attitudes leading to proficiency in all the domains of clinical competency requires the resident and fellow physician to assume personal responsibility for the care of individual patients. For the resident and fellow, the essential learning activity is interaction with patients under guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents and fellows gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept — graded and progressive responsibility — is one of the core tenets of American GME. Supervision in the GME setting has the goals of assuring

the provision of safe and effective care to the individual patient; assuring each resident or fellow's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

The program director is responsible for the content and conduct of all educational activities at all teaching sites.

Trainee performance and progress are evaluated by program faculty verbally and in writing with progression consistent with ACGME milestones assessed twice yearly by the Clinical Competency Committee and further reviewed by the Residency Advisory Committee. These formal mechanisms are in place for monitoring and documenting each trainee's acquisition of fundamental knowledge and clinical skills and overall performance throughout the academic year.

Trainees are supervised by faculty and given regular feedback on their performance in real-time and at regular intervals from the program director or associate program director with input from the Clinical Competency Committee (CCC), as noted. If a trainee is not meeting expectations or experiencing difficulties, the program director will determine if remediation is needed.

In the event academic action is necessary, policies and procedures must follow the UCSF GME academic due process policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=21).

## **Trainee Responsibilities**

UCSF residents and fellows are expected to:

- Develop a personal program of self-study and professional growth with guidance from the faculty;
- Participate in safe, effective, and compassionate patient care under supervision commensurate with their level of advancement and responsibility;
- Participate fully in the educational and scholarly activities of their program and as required, assume responsibility for teaching and supervising other residents, fellows, and students;
- Participate in institutional programs and activities involving the medical staff and adhere to established practices, procedures, and policies of the institution;
- Participate in institutional committees and councils, especially those that relate to patient care activities;
- Participate in evaluation of the quality of education provided by the program;
- Develop an understanding of ethical, socioeconomic, and medical/ legal issues that affect graduate medical education and how to apply cost containment measures in the provision of patient care;
- · Comply with established ethical behavior and practices;
- Adhere to federal, state, and campus deadlines and requirements regarding licensure and registration for the practice of medicine;
- Respond to the Office of GME (OGME) and the home program/ department for information related to position/rank and function;
- Adhere to all departmental, School of Medicine, GME, and ACGME policies and procedures.

## **Benefits/Leave**

UCSF residents and fellows are entitled to four (4) work weeks of vacation, 12 sick days, and eight weeks of paid parental leave

annually. Find more information about trainee leaves (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf). Scheduling of leave is in accordance with the Anesthesia Residency program leave policy (https://anesthesia.ucsf.edu/sites/anesthesia.ucsf.edu/files/wysiwyg/leave%5B2%5D.pdf).

Time spent away from the program may impact program completion per American Board requirements. Programs are required to provide timely notice of the effect of leave(s) on the ability of trainees to satisfy requirements for completion.

## **UCSF Hospital System Responsibilities**

- Sleep rooms and lounges: Sleep rooms and lounges for residents and fellows are provided at rotation sites. They may use for overnight call and napping.
- · Uniforms: One long white coat is issued to new residents.
- Work Hours: UCSF GME work hour policy applies to all residents and fellows and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf).
- Communication: Pagers, email addresses, and access to the UCSF network are provided to all residents and fellows when they start their training.
- Library: All trainees have access to the UCSF library, both in-person and online. They also have access to libraries at the sites in which they rotate.

### **Salaries**

Trainee salaries are determined through collective bargaining with CIR-SEIU Healthcare, the exclusive representative of UCSF residents and fellows. If program policy allows, trainees may elect to moonlight. Find the UCSF GME moonlighting policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=59) in the 2022-2023 Housestaff Information Booklet.

# Clinical Pharmacology and Therapeutics Postdoctoral Training Program

Visit program website. (https://pharm.ucsf.edu/cpt/)

## **Program Description**

The UCSF Clinical Pharmacology and Therapeutics (CPT) Postdoctoral Training Program is a research-intensive, two-year training experience that prepares clinician-scientists to become leaders in clinical pharmacology research within academia, industry, and government. The program seeks candidates whose experience, teaching, research, or community service has prepared them to contribute to our commitment to diversity and excellence. The program meets the fellowship training expectations set forth by the American Board of Clinical Pharmacology (https://www.abcp.net/) (ABCP) and is a registered member of ABCP. We anticipate that 80 percent of our graduates will obtain board certification in clinical pharmacology.

Fellowship funding comes from National Institute of General Medical Sciences and National Institute of Child Health and Development T32 training grants as well as the UCSF School of Pharmacy Department of Clinical Pharmacy and Dean's Office.

#### **Training Highlights**

- Participate in clinical pharmacology-related research (75% to 80%)
- · Patient care (up to 20%)
- · MD fellows will provide clinical service in their subspecialty area
- PharmD fellows will provide direct patient care through planned UCSF clinical pharmacy service
- Biweekly, interdisciplinary didactics based on the National Institutes of Health (NIH) Principles of Clinical Pharmacology
- Quarterly research seminar focused on multidisciplinary, collaborative, basic, and clinical research
- · Responsible conduct of research training
- · Individualized training plan
- · Present and publish results of scholarly work

## **Additional Information**

Contact for questions and additional info:

Leslie Carstensen Floren, PharmD, PhD, MAEd, DABCP

## **General Practice Residency**

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/qpr/)

## **Summary Description**

The UCSF General Practice Residency (GPR) is a 12-month full-time intensive postgraduate training program designed to prepare the general dentist in the management of medically complex and special-needs patients in both outpatient and hospital settings, while increasing knowledge in the practice of dentistry and its various disciplines.

#### **Additional Information**

Contact for questions and additional info:

Admissions Contacts:
Brennan Crilly
Julia Hwang
Postgraduate Programs
Office of Admissions and Outreach
School of Dentistry
sod.postgraduate@ucsf.edu

## **Dentistry Preceptorships and Fellowships**

Visit program website. (https://dentistry.ucsf.edu/continuing-education/programs/)

## **Summary Description**

The UCSF School of Dentistry offers non-degree preceptorship and fellowship programs for domestic and international dental school graduates and practitioners through its Continuing Dental Education department. The objective of the programs is to provide additional educational experiences to dentists in a specific area of subspecialty interest. The preceptors/fellows attend school on a full-time basis. The curriculum includes classes with postgraduate and undergraduate dental students and residents. It involves observation in the clinics. The programs are structured to allow for personalized instruction. Upon completion of all program requirements, students receive a certificate of participation. The dental school currently accepts applications for preceptees/fellows in the following areas:

- · Craniofacial orthodontics
- · Oral medicine
- · Orthodontics
- · Prosthodontics and maxillofacial prosthetics
- Periodontology
- · Advanced Education in General Dentistry (AEGD)
- Endodontics

\*After successful completion, individuals are awarded a certificate of completion signed by the Program Director. This certificate of completion is not the same as a postgraduate program certificate awarded to full-time postgraduate students in a specialty training program in the United States.

## **Additional Information**

Contact for questions and additional info:

UCSF Continuing Dental Education: cde@ucsf.edu

## **Endodontics Residency**

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/endodontics/)

## **Summary Description**

The Division of Endodontics offers an outstanding environment for dental graduates interested in postgraduate specialty training, with state-of-the art facilities and a faculty that includes not only talented endodontists but clinicians from all dental specialties.

Lectures, seminars, demonstrations and conferences, with an emphasis on the biological aspects of the pathogenesis and treatment of endodontic diseases, make up the bulk of the didactic curriculum. Advanced courses in microbiology, oral pathology, classic and current endodontic literature, and clinical case presentations are critical components of the program. The program of study is designed to train endodontists who are capable of changing their therapeutic approaches based on new data from well-controlled scientific studies.

Supplementing this curriculum, clinical training comprises 50 to 60 percent of the program, providing residents with experience in all modalities of endodontic treatment, including conventional and surgical endodontic treatment. Use of the surgical operating microscope and CBCT 3D imaging is fully integrated into patient care.

The full-time, 24-month program is fully accredited and meets the educational requirements of the Commission of Dental Accreditation and the American Dental Association. Upon completion of the residency, graduates are awarded a certificate in endodontics and are educationally qualified for board certification by the American Board of Endodontics.

Yearly stipends are available, depending on eligibility and the availability of funding. Residents are expected to devote 100 percent of their professional activities to the program. Permission to carry out practice or other professional activities outside of the program can be granted by the program director only in exceptional circumstances.

## **Additional Information**

Contact for questions and additional info:

Mike Sabeti, DDS, MA, Program Director (mike.sabeti@ucsf.edu)

## **Limb Preservation Fellowship**

Visit program website. (https://vascularsurgery.ucsf.edu/education-training/fellowships/limb-preservation-fellowship-non-acgme.aspx)

#### Program Leadership:

Michael S. Conte, MD, Program Co-Director Alexander M. Reyzelman, DPM, Program Co-Director

#### **Administrative Staff:**

Stacey Ma, Education Program Administrator Matt Kuhn, Administrative Assistant

#### Address:

UCSF Limb Preservation Fellowship School of Medicine University of California, San Francisco Campus Box 0222 400 Parnassus Avenue, Suite A-581 San Francisco, CA 94143

#### Phone:

415.353.4359

#### Email

stacey.ma@ucsf.edu or matt.kuhn@ucsf.edu

## **Program Description**

#### **Summary**

The mission for the UCSF Limb Preservation Fellowship is to educate and train a podiatric physician as a clinically skilled podiatrist in a multidisciplinary approach to the diabetic and vascular complications of the lower extremity, as well as generating new knowledge in the treatment, management and prevention of the lower extremity amputations. The cornerstone of this program is teaching at a level of excellence, which fosters excitement and enthusiasm for a lifetime commitment to scholarship.

The UCSF Vascular and Endovascular Surgery Limb Preservation Fellowship is a one-year non-ACGME fellowship program for physicians who have completed podiatric training and who wish to further specialize in limb salvage. The fellowship is part of the education and training mission of the UCSF Division of Vascular and Endovascular Surgery. Fellows will rotate through vascular/podiatry multidisciplinary clinics at UCSF Medical Center at Parnassus, Saint Mary's Medical Center (SMMC), and Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG).

#### Location

Limb Preservation Fellowship will be based at UCSF and will be under the jurisdiction of the Division of Vascular/Endovascular Surgery. Fellows will be expected to cover UCSF, SMMC and SFGH vascular/podiatry multidisciplinary clinics.

- a. Educational sites/methods
  - i. Inpatient consult services
  - ii. Outpatient clinics
  - iii. Inpatient ward services
  - iv. Patient care conference
- b. Evaluation tools
  - i. Direct faculty observations using evaluation forms

#### **Duration**

This will be a one-year program, which will begin on August 1, and will end on July 31.

#### **Specific Program Content**

- · Peripheral arterial disease of the lower extremity
- · Critical limb ischemia (CLI)
- · Peripheral neuropathy of the lower extremity
- · Diabetic foot ulcerations
- · Ischemic foot ulcerations
- · Venous insufficiency ulcerations
- · Decubitus ulcerations
- · Charcot arthropathy
- Foot amputations
- Chronic renal insufficiency and diabetic lower extremity complications
- · ESRD and its effect on the lower extremity
- · Endovascular procedures
- · Lower extremity open revascularization procedures
- · Diabetic foot infections
- · Orthotics and prosthetics of the lower extremity

#### **Ancillary Education**

Fellow is expected to attend The Division's weekly educational vascular surgery conferences at the Medical School, as well as attend all pertinent educational activities.

Fellow is expected to give four educational lectures during the year.

#### **Medical Knowledge Objectives**

Attend core conferences and teaching rounds to learn the pathophysiology, epidemiology, disease management and procedure and medicine management skills for common and uncommon inpatient/outpatient lower extremity complications.

#### **Scholarly Activities**

Fellows will be expected to have one publishable research project by the end of the academic year and present and abstract at a national vascular or podiatric conference.

## **Instructors and Resources Teaching Staff**

- · Michael Conte, MD, Professor of Surgery
- · Alexander Reyzelman, DPM, Associate Physician Diplomate
- · Monara Dini, DPM, Associate Clinical Professor
- · Mher Vartivarian, DPM, Clinical Instructor
- · Charles Eichler, MD, Professor of Surgery
- · Clara Gomez-Sanchez, MD, Assistant Professor of Surgery
- · Jade Hiramoto, MD, Professor of Surgery
- · Shant Vartanian, MD, Associate Professor of Surgery

#### Instructional Facilities

- · UCSF Medical Center at Parnassus, San Francisco, CA
- · Saint Mary's Medical Center (SMMC), San Francisco, CA

 Zuckerberg San Francisco General Hospital and Trauma Center, San Francisco, CA

## **Entrance Requirements**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME eligibility policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

The program specific requirements for entrance can be found at the UCSF Limb Preservation Fellowship website. (https://vascularsurgery.ucsf.edu/education-training/fellowships/limb-preservation-fellowship-non-acgme.aspx)

### **Policies**

### **Enrollment Policy**

In accordance with ACGME requirements for graduate medical education, UCSF School of Medicine GME policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Credit Evaluation Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME supervision, evaluation, and other policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf).

The program specific supervision, communication/escalation, and evaluation policies will be discussed and reviewed on a first day meeting with the program director and associate program director. A mid-year and end of year multi-source evaluation will be completed in accordance with ACGME, UCSF GME, and program policies and requirements. In addition, feedback will be provided routinely in real-time via face to face interaction with the Vascular and Podiatric Faculty.

All faculty and trainees are educated about fatigue in GME training and adept at recognizing fatigue in themselves and others. In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME fatigue mitigation policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Attendance Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME leave policy, which addresses vacation, sick, parental, and other leave, applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

Absence: Refer to the GME leave policy in the 2022-2023
 Housestaff Information Booklet (https://meded.ucsf.edu/sites/

meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

- Tardiness: Fellows are expected to contact their site preceptor by 8:30 a.m. to indicate if they will be late or absent that day for any reason, notify the Chief resident, and to document absence in the MedHub system.
- Interruption for Unsatisfactory Attendance: Interruption for unsatisfactory attendance is address through the established UCSF GME disciplinary mechanisms noted elsewhere in this document.
   Fellows taking more than the allowed vacation/sick time may be required to extend their fellowship past the normal graduation date.
- Cutting Classes: Fellows must attend a minimum of 70% of conferences during their fellowship and unsatisfactory attendance will be reviewed at the semi-annual Clinical Competency Committee. If needed the fellow will be put on a remediation plan until the situation is rectified.
- Make-up Work: Missed conferences that have been recorded will be available for later viewing. Other missed conferences are made up at the discretion of the program director.
- Leave of Absence: Refer to the GME leave policy in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf).

#### **Policy on Academic Progress**

The medical education of physicians to practice independently is experiential and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge and attitudes leading to proficiency in all the domains of clinical competency requires the resident and fellow physician to assume personal responsibility for the care of individual patients. For the resident and fellow, the essential learning activity is interaction with patients under guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents and fellows gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept - graded and progressive responsibility - is one of the core tenets of American GME. Supervision in the GME setting has the goals of assuring the provision of safe and effective care to the individual patient; assuring each resident or fellow's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

The program director is responsible for the content and conduct of all educational activities at all teaching sites.

Trainee performance and progress are evaluated by program faculty verbally and in writing with progression consistent with ACGME milestones assessed twice yearly by the Clinical Competency Committee and further reviewed by the Residency Advisory Committee. These formal mechanisms are in place for monitoring and documenting each trainee's acquisition of fundamental knowledge and clinical skills and overall performance throughout the academic year.

Trainees are supervised by faculty and given regular feedback on their performance in real-time and at regular intervals from the program director or associate program director with input from the Clinical Competency Committee (CCC), as noted. If a trainee is not meeting expectations or experiencing difficulties, the program director will determine if remediation is needed.

In the event academic action is necessary, policies and procedures must follow the UCSF GME academic due process policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=21).

## **Trainee Responsibilities**

UCSF residents and fellows are expected to:

- Develop a personal program of self-study and professional growth with guidance from the faculty;
- Participate in safe, effective, and compassionate patient care under supervision commensurate with their level of advancement and responsibility;
- Participate fully in the educational and scholarly activities of their program and as required, assume responsibility for teaching and supervising other residents, fellows, and students;
- Participate in institutional programs and activities involving the medical staff and adhere to established practices, procedures, and policies of the institution;
- Participate in institutional committees and councils, especially those that relate to patient care activities;
- Participate in evaluation of the quality of education provided by the program;
- Develop an understanding of ethical, socioeconomic, and medical/ legal issues that affect graduate medical education and how to apply cost containment measures in the provision of patient care;
- · Comply with established ethical behavior and practices;
- Adhere to federal, state, and campus deadlines and requirements regarding licensure and registration for the practice of medicine;
- Respond to the Office of GME (OGME) and the home program/ department for information related to position/rank and function;
- Adhere to all departmental, School of Medicine, GME, and ACGME policies and procedures.

## **Benefits/Leave**

UCSF residents and fellows are entitled to four (4) work weeks of vacation, 12 sick days, and eight (8) weeks of paid parental leave annually. Find more information about trainee leaves (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf). Scheduling of leave should be made in advance by writing by the trainee to the education coordinator. Leave requests will then be reviewed and approved by the program directors, who will take into consideration any concerns with coverage that may affect patient care.

Time spent away from the program may impact program completion per American Board requirements. Programs are required to provide timely notice of the effect of leave(s) on the ability of trainees to satisfy requirements for completion.

## **UCSF Hospital System Responsibilities**

- Sleep rooms and lounges: Sleep rooms and lounges for residents and fellows are provided at rotation sites. They may use for overnight call and napping.
- · Uniforms: One long white coat is issued to new residents.
- Work Hours: UCSF GME work hour policy applies to all residents and fellows and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/

meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

- Communication: Pagers, email addresses, and access to the UCSF network are provided to all residents and fellows when they start their training.
- Library: All trainees have access to the UCSF library, both in-person and online. They also have access to libraries at the sites in which they rotate.

### **Salaries**

Trainee salaries are determined through collective bargaining with CIR-SEIU Healthcare, the exclusive representative of UCSF residents and fellows. Trainees are not permitted to moonlight during this fellowship program.

## **Orthopaedic Surgery Residency**

Visit program website. (https://orthosurgery.ucsf.edu/)

#### Program Leadership:

Thomas Vail, MD, Department Chair Hubert Kim, MD, PhD, Program Director

#### **Administrative Staff:**

Johnson Huang, Program Administrator

#### Address:

UCSF Orthopaedic Surgery Residency Program School of Medicine University of California, San Francisco 500 Parnassus Avenue, MU-320 W San Francisco, CA 94143

#### Phone:

415.476.6548

#### Email:

johnson.huang@ucsf.edu

## **Program Description**

The UCSF Orthopaedic Surgery Residency Program is dedicated to training orthopaedic surgeons who will make a difference locally, nationally, and globally. UCSF is a wonderfully collaborative and inclusive place where excellence is the norm. We strive to create a learning environment that rewards exploration, discovery, and the rigorous pursuit of knowledge.

Our Department is focused first and foremost on training residents. Compared to many of the other training programs you are likely considering, ours trains relatively few fellows, and some of our subspecialty groups train no fellows at all. We believe this commitment to resident education allows us to create a learning environment where your educational needs come first.

Our clinical training paradigm is based on a model in which residents have two rotations in each subspecialty area, once as a junior resident and again as a senior resident. This schedule provides ample exposure to all subspecialty areas before our residents need to decide on fellowship options. We also utilize a variety of teaching sites, including some overseas, to provide exposure to a diverse patient population and to different health care delivery systems. This structure allows us to provide the breadth and depth of clinical exposure that our residents have asked for through years of fine-tuning their experience.

## Instructors & Resources Teaching Staff

The UCSF Orthopaedic Surgery Residency Program has a wealth of clinical and research faculty distributed throughout UCSF and its associated hospitals listed below. Education within the program and supervision of trainees are the focus of the majority of the faculty.

- · Tamara Alliston, PhD, Associate Professor
- · Jeannie Bailey, PhD, Assistant Professor
- · Jeffrey Barry, MD, Assistant Professor
- · John Belzer, MD, Chairman, CPMC
- · Sigurd Berven, MD, Professor

- · Stefano Bini, MD, Professor
- · Shane Burch, MD, Professor
- · Lan Chen, MD, Associate Professor
- · Nicholas Colyvas, MD, Professor
- · Alan Dang, MD, Associate Professor
- · Alexis Dang, MD, Associate Professor
- · Jon Davids, MD, Assistant Chief of Orthopaedic Surgery
- · Sibel Demir-Deviren, MD, Professor
- · Vedat Deviren, MD, Professor
- · Mohammad Diab, MD, Professor
- · Anthony Ding, MD, Assistant Professor
- · Sara Edwards, MD, Associate Professor
- · Ashraf El Naga, MD, Assistant Professor
- Brian Feeley, MD, Professor in Residence and Associate Program
   Director
- · Erik Hansen, MD, Associate Professor
- · Igor Immerman, MD, Assistant Professor
- · Jason Jagodzinki, MD, Assistant Professor
- · Michelle James, MD, Chief of Orthopaedic Surgery, Shriners
- · Utku Kandemir, MD, Professor
- · "Hubert Kim, MD,
- · PhD, Program Director and Vice Chair"
- · "Afred Kuo, MD,
- · PhD, Professor"
- · Drew Lansdown, MD, Assistant Professor
- Elly LaRoque, MD, Professor
- Nicolas Lee, MD, MS, Associate Professor
- · Kristin Livingston, MD, Associate Professor
- · Benjamin Ma, MD, Professor
- · Meir Marmor, MD, Associate Professor
- · Lionel Metz, MD, Assistant Professor
- · Theodore Miclau, MD, Professor
- · Saam Morshed, MD, Associate Professor
- · Richard O'Donnell, MD, Professor
- · Kirstina Olson, MD, Associate Professor
- · Nirav Pandya, MD, Associate Professor
- · Lisa Pascual, MD, Professor
- · Coleen Sabatini, MD, Associate Professor
- · Sanjeev Sabharwal, MD, MPH, Professor
- · Lauren Santiesteban, MD, Assistant Professor
- Nicole Schroeder, MD, Professor and Associate Program Director
- · Lauren Shapiro, MD, MS, Assistant Professor
- · David Shearer, MD, Assistant Professor
- · Jennifer Tangtiphaiboontana, MD, Assistant Professor
- · Bobby Tay, MD, Professor
- · Alexander Theologis, MD, Assistant Professor
- Daniel Thuillier, MD, Associate Professor
- Paul Toogood, MD, Assistant Professor
- · Thomas Vail, MD, Professor and Chair
- · Derek Ward, MD, Assistant Professor
- · Stephanie Wong, MD, Assistant Professor

- · Rosanna Wustrack, MD, Associate Professor
- · Alan Zhang, MD, Associate Professor

#### **Instructional Facilities**

- · UCSF Medical Center at Parnassus, San Francisco, CA
- · Orthopaedic Institute at Mission Bay, San Francisco, CA
- Zuckerberg San Francisco General Hospital and Trauma Center, San Francisco, CA
- · San Francisco Veterans Affairs Medical Center, San Francisco, CA
- · Mission Bay Adult and Benioff Children's Hospital, San Francisco, CA
- · UCSF Benioff Children's Hospital Oakland, Oakland, CA
- · Shriners Hospitals for Children, Sacramento, CA
- · California Pacific Medical Center, San Francisco, CA

## **Entrance Requirements**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME eligibility policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

The program specific information can be found at: orthosurgery.ucsf.edu/education/residency/residency-apply (https://orthosurgery.ucsf.edu/education/residency/residency-apply/).

#### **Policies**

#### **Enrollment Policy**

In accordance with ACGME requirements for graduate medical education, UCSF School of Medicine GME policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

## **Credit Evaluation Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME supervision, evaluation, and other policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf).

Each program has a multisource learner assessment program in accordance with ACGME, UCSF GME, and program policies and requirements.

All faculty and trainees are educated about fatigue in GME training and adept at recognizing fatigue in themselves and others. In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME fatigue mitigation policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Attendance Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME leave policy, which

addresses vacation, sick, parental, and other leave, applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

- Absence: Refer to the GME leave policy in the 2022-2023
   Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).
- Tardiness: Fellows are expected to contact their site preceptor by 8:30 a.m. to indicate if they will be late or absent that day for any reason, notify the Chief resident, and to document absence in the MedHub system.
- Interruption for Unsatisfactory Attendance: Interruption for unsatisfactory attendance is address through the established UCSF GME disciplinary mechanisms noted elsewhere in this document.
   Fellows taking more than the allowed vacation/sick time may be required to extend their fellowship past the normal graduation date.
- Cutting Classes: Fellows must attend a minimum of 70% of conferences during their fellowship and unsatisfactory attendance will be reviewed at the semi-annual Clinical Competency Committee. If needed the fellow will be put on a remediation plan until the situation is rectified.
- Make-up Work: Missed conferences that have been recorded will be available for later viewing. Other missed conferences are made up at the discretion of the program director.
- Leave of Absence: Refer to the GME leave policy in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf).

#### **Policy on Academic Progress**

The medical education of physicians to practice independently is experiential and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge and attitudes leading to proficiency in all the domains of clinical competency requires the resident and fellow physician to assume personal responsibility for the care of individual patients. For the resident and fellow, the essential learning activity is interaction with patients under guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents and fellows gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept - graded and progressive responsibility - is one of the core tenets of American GME. Supervision in the GME setting has the goals of assuring the provision of safe and effective care to the individual patient; assuring each resident or fellow's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

The program director is responsible for the content and conduct of all educational activities at all teaching sites.

Trainee performance and progress are evaluated by program faculty verbally and in writing with progression consistent with ACGME milestones assessed twice yearly by the Clinical Competency Committee and further reviewed by the Residency Advisory Committee. These formal mechanisms are in place for monitoring and documenting each trainee's acquisition of fundamental knowledge and clinical skills and overall performance throughout the academic year.

Trainees are supervised by faculty and given regular feedback on their performance in real-time and at regular intervals from the program director or associate program director with input from the Clinical Competency Committee (CCC), as noted. If a trainee is not meeting expectations or experiencing difficulties, the program director will determine if remediation is needed.

In the event academic action is necessary, policies and procedures must follow the UCSF GME academic due process policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=21).

## **Trainee Responsibilities**

UCSF residents and fellows are expected to:

- Develop a personal program of self-study and professional growth with guidance from the faculty;
- Participate in safe, effective, and compassionate patient care under supervision commensurate with their level of advancement and responsibility;
- Participate fully in the educational and scholarly activities of their program and as required, assume responsibility for teaching and supervising other residents, fellows, and students;
- Participate in institutional programs and activities involving the medical staff and adhere to established practices, procedures, and policies of the institution;
- Participate in institutional committees and councils, especially those that relate to patient care activities;
- Participate in evaluation of the quality of education provided by the program;
- Develop an understanding of ethical, socioeconomic, and medical/ legal issues that affect graduate medical education and how to apply cost containment measures in the provision of patient care;
- · Comply with established ethical behavior and practices;
- Adhere to federal, state, and campus deadlines and requirements regarding licensure and registration for the practice of medicine;
- Respond to the Office of GME (OGME) and the home program/ department for information related to position/rank and function;
- Adhere to all departmental, School of Medicine, GME, and ACGME policies and procedures.

## **Benefits/Leave**

UCSF residents and fellows are entitled to four (4) work weeks of vacation, 12 sick days, and eight weeks of paid parental leave annually. Find more information about trainee leaves (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf). More information about benefits can be found at orthosurgery.ucsf.edu/education/residency/residency-benefits (https://orthosurgery.ucsf.edu/education/residency/residency-benefits/).

Time spent away from the program may impact program completion per American Board requirements. Programs are required to provide timely notice of the effect of leave(s) on the ability of trainees to satisfy requirements for completion.

## **UCSF Hospital System Responsibilities**

- Sleep rooms and lounges: Sleep rooms and lounges for residents and fellows are provided at rotation sites. They may use for overnight call and napping.
- · Uniforms: One long white coat is issued to new residents.
- Work Hours: UCSF GME work hour policy applies to all residents and fellows and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf).
- Communication: Pagers, email addresses, and access to the UCSF network are provided to all residents and fellows when they start their training.
- Library: All trainees have access to the UCSF library, both in-person and online. They also have access to libraries at the sites in which they rotate.

#### **Salaries**

Trainee salaries are determined through collective bargaining with CIR-SEIU Healthcare, the exclusive representative of UCSF residents and fellows. If program policy allows, trainees may elect to moonlight. Find the UCSF GME moonlighting policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=59) in the 2022-2023 Housestaff Information Booklet.

## School of Medicine Fellowship Training Programs

Visit program website. (https://meded.ucsf.edu/residents-clinical-fellows/ucsf-training-programs/)

## **Summary Description**

The UCSF School of Medicine offers more than 70 fellowship programs accredited by the Accreditation Council for Graduate Medical Education (ACGME) and more than 100 non-accredited fellowship programs. As one of the largest graduate medical education (GME) programs in the United States, UCSF is leading the way in innovations in education, patient care, research, and community service. In partnership with UCSF Health, San Francisco Veterans Affairs Medical Center, and Zuckerberg San Francisco General Hospital and Trauma Center, as well as 60 additional training sites, we strive every day to provide our residents and fellows with the highest quality education and training, graduating some of the best doctors in the world.

Find a full list of fellowship programs on the next tab. For more information on individual programs, please visit our website and select the appropriate clinical department's website.

#### **Additional Information**

Contact for questions and additional info:

For more information about UCSF GME, please contact Amy C. Day Rossa, EdD, MBA, Director of GME, at amy.dayrossa@ucsf.edu. For more information about a specific program, please contact the program administrator for the program. This information can be found at the website above

## **Fellowships**

Here is a full list of School of Medicine fellowship programs. For additional information, visit meded.ucsf.edu/residents-clinical-fellows/ucsf-training-programs (https://meded.ucsf.edu/residents-clinical-fellows/ucsf-training-programs/).

- · Abdominal Imaging
- · Addiction Psychiatry
- · Adolescent Medicine
- · Adult Cardiothoracic Anesthesiology
- · Adult Congenital Heart Disease
- · Adult R25 Neurology
- · Advanced Echocardiography
- Advanced Heart Failure and Transplant Cardiology
- Advanced IBD
- · Advanced Therapeutics/Endoscopy
- · AIDS Positive Health
- · Allergy and Immunology
- Arthroplasty
- · Blood Banking/Transfusion Medicine
- · Bone Marrow Transplant
- Brachytherapy
- Breast Surgery
- · Cardiovascular Disease
- · Child and Adolescent Psychiatry

- · Child R25 Neurology Fellowship
- · Clinical Cardiac Electrophysiology
- · Clinical Educator
- · Clinical GI Pathology (Selective Pathology)
- · Clinical Informatics
- · Clinical Pathology Research
- · Complex Family Planning
- · Complex Medical Dermatology
- · Consultation-Liaison Psychiatry
- · Cornea (Proctor)
- · Critical Care Medicine
- · Cytopathology
- · Dermatopathology
- · Emergency Medical Services
- · Emergency Medicine Clinical Research
- · Emergency Medicine Global Health
- · Emergency Medicine Medical Education
- · Emergency Medicine Ultrasound
- · Endocrine Surgery
- · Endocrinology, Diabetes, and Metabolism
- · Endourology and Laparoscopy
- Epilepsy
- · Eye Pathology
- Facial Plastic and Reconstructive Surgery
- · Family and Community Medicine Chief Residency
- · Family Medicine Sports Medicine
- · Forensic Psychiatry
- · Functional Neurological Surgery
- Gastroenterology
- · General Internal Medicine
- · General OBGYN Research
- · Geriatric Medicine
- · Geriatric Psychiatry
- Glaucoma
- · Global Health Hospital Medicine
- · Gynecologic Oncology
- · Hand Surgery
- · Head and Neck Cancer
- Headache
- Heal Initiative
- · Hematology and Oncology
- Hematopathology
- · Hospice and Palliative Medicine
- Hospital Medicine
- · Imaging Fellowship
- Infectious Disease
- Integrative Medicine for Underserved Populations (FCM)
- · Interventional Cardiology
- · Interventional Pulmonology
- · Interventional Radiology-Independent
- · Laboratory Genetics and Genomics (Medical Related Specialty)
- · Laparoscopic Surgery

- Laryngology
- · Limb Preservation (Podiatry) (p. 150)
- · Maternal and Fetal Medicine
- · Medical Toxicology
- · Memory and Aging
- · Micrographic Surgery and Dermatologic Oncology
- · Movement Disorders
- · Multiple Sclerosis
- · Musculoskeletal Radiology
- · Neonatal Neurology
- · Neonatal-Perinatal Medicine
- Nephrology
- Neurohospitalist
- · Neurointerventional Radiology
- · Neurological Critical Care
- · Neuromuscular Medicine
- Neuropathology
- Neuroradiology
- · Neurosurgery Spine
- Neurotrauma
- · OBGYN Hospitalist
- · OBGYN NCSP Research
- · Obstetrics Anesthesiology
- · Occupational Medicine Third Year (Preventive Medicine)
- Ophthlamic Plastics and Reconstructive Surgery
- · Orthopaedic Spine Surgery
- Orthopaedic Sports Medicine
- · Orthopaedic Surgery Research Residency
- · Orthopaedic Trauma
- · Otolaryngology Research
- · Pain Medicine
- · Pediatric Anesthesiology
- · Pediatric Bone Marrow Transplant
- · Pediatric Cardiology
- · Pediatric Critical Care
- · Pediatric Dermatology
- · Pediatric Emergency Medicine Ultrasound
- · Pediatric Endocrinology
- Pediatric Gastroenterology
- · Pediatric Hematology and Oncology
- · Pediatric Hospital Medicine
- · Pediatric Infectious Disease
- · Pediatric Nephrology
- · Pediatric Neurological Surgery
- · Pediatric Orthopaedic Surgery
- Pediatric Otolaryngology
- · Pediatric Pulmonology
- · Pediatric Rheumatology
- Pediatric SurgeryPediatric Transplant Hepatology
- Pediatric Urology
- · Pediatrics Chief Residency

- · Physical Therapy Acute Care Residency
- Physical Therapy Neurologic Residency
- · Physical Therapy Orthopaedic Residency
- · Plastic Surgery
- Plastic Surgery Research Residency
- · Preventive Cardiology
- · Primary Care Addiction Medicine
- Psoriasis
- · Psychiatry Research
- · Public Psychiatry
- · Pulmonary Disease and Critical Care Medicine
- · Regional Anesthesia
- · Reproductive Endocrinology and Infertility
- Retina
- Rheumatology
- San Francisco VA Health Professions Education Evaluation and Research
- · Sleep Medicine
- · Structural Interventional Cardiology
- · Surgery (East Bay) Research Residency
- · Surgery Research Residency
- · Surgical Critical Care
- · Surgical Pathology
- · Transplant Hepatology
- Urologic Oncology
- · Urology Research Residency
- · Uveitis (Proctor)
- · Vascular (Neurosurgery)
- · Vascular Neurology
- · Vascular Surgery Integrated Research Residency
- Vascular Surgery
- · Women's Health
- · Women's Imaging

## Medicine Residency and Fellowship Training Programs, UCSF Fresno

Visit program website. (https://www.fresno.ucsf.edu/medical-education/)

## **Summary Description**

UCSF Fresno is a major educational and clinical branch of UCSF located in the San Joaquin Valley region of California. UCSF Fresno offers eight medical residency training programs, all accredited by the Accreditation Council for Graduate Medical Education (ACGME), one oral and maxillofacial surgery residency training program, accredited by the Commission on Dental Accreditation (CODA), and 19 fellowship training programs that are a combination of accredited and non-accredited programs. In partnership with Community Medical Centers, Community Regional Medical Center, VA Central California Health Care System (VACCHCS), Family Health Care Network (FHCN), UCSF and other training sites, UCSF Fresno strives every day to provide our trainees with the highest quality education and training experience.

### **Additional Information**

#### **Fresno Residency Programs**

- · Emergency Medicine
- · Family and Community Medicine
- · Internal Medicine
- · Obstetrics/Gynecology (p. 170)
- · Oral and Maxillofacial Surgery
- · Orthopaedic Surgery
- Pediatrics
- Psychiatry
- · General Surgery

## Fresno Fellowship Programs

- · Surgical Critical Care
- Acute Care Surgery
- · Cardiovascular Disease
- Gastroenterology
- Hematology/Oncology
- · Hospice and Palliative Medicine
- · Infectious Diseases
- · Interventional Cardiology
- Pulmonary/Critical Care
- · Sleep Medicine

For more information on individual programs, please visit our website and select the appropriate clinical department's website.

#### Contact for questions and additional info:

For more information about UCSF Fresno GME, please contact the UCSF Fresno GME Office at Fresno-GME@ucsf.edu. For more information about a specific program, please contact the program coordinator for that program. Program coordinator contact information can be found at the website linked above.

## School of Medicine Residency Training Programs

Visit program website. (https://meded.ucsf.edu/residents-clinical-fellows/ucsf-training-programs/)

## **Program Description**

The UCSF School of Medicine offers 28 residency training programs, all of which are accredited by the Accreditation Council for Graduate Medical Education (ACGME). As one of the largest graduate medical education (GME) programs in the United States, UCSF is leading the way in innovations in education, patient care, research, and community service. In partnership with UCSF Health, San Francisco Veterans Affairs Medical Center, and Zuckerberg San Francisco General Hospital and Trauma Center, as well as 60 additional training sites, we strive every day to provide our residents and fellows with the highest quality education and training, graduating some of the best doctors in the world.

For more information on individual programs, please visit our website and select the appropriate clinical department's website.

### **Additional Information**

Contact for questions and additional info:

For more information about UCSF GME, please contact Amy C. Day Rossa, EdD, MBA, director of GME, at amy.dayrossa@ucsf.edu. For more information about a specific program, please contact the program administrator for the program. This information can be found at the website above.

Detailed information is available for the following residency programs:

- · Anesthesia Residency (p. 145)
- · Occupational and Environmental Medicine Residency (p. 161)
- · Orthopaedic Surgery Residency (p. 153)
- · Pathology and Laboratory Medicine Residency (p. 166)

## **Residencies**

Here is a full list of School of Medicine residency programs. For additional information, visit meded.ucsf.edu/residents-clinical-fellows/ucsf-training-programs (https://meded.ucsf.edu/residents-clinical-fellows/ucsf-training-programs/).

- · Anesthesiology
- Child Neurology
- Dermatology
- · Diagnostic Radiology
- · Emergency Medicine
- · Family Medicine
- · Internal Medicine
- · Internal Medicine Chief Residency
- · Interventional Radiology Integrated
- · Medical Genetics
- · Neurological Surgery
- Neurology
- Obstetrics and Gynecology
- · Occupational Medicine (Preventive Medicine)

- · Ophthalmology
- Orthopaedic Surgery
- Otolaryngology
- · Pathology-Anatomic and Clinical
- Pediatrics
- Plastic Surgery
- Psychiatry
- · Radiation Oncology
- · Surgery (East Bay)
- Surgery
- · Thoracic Surgery
- Urology
- · Vascular Surgery Integrated

## Nurse Practitioner Fellowship Programs

## **Program Description**

UCSF offers three advanced practice provider (APP) fellowship programs that are led by exceptional APPs and feature practice-based learning, didactic education, mentorship, and scholarly projects. The programs are designed to expand the knowledge and skills new graduate (within 18 months of program completion) APPs acquire during their graduate or doctoral training. UCSF APP fellows are full-time salaried employees with health care and vacation benefits. The programs run November 1 to October 31 annually.

## UCSF Surgical and Critical Care Nurse Practitioner Fellowship

The UCSF Surgical and Critical Care Advanced Practice Provider (APP) Fellowship was the first critical care NP fellowship in California, and the first surgical NP fellowship in the country to earn Accreditation with Distinction, the highest recognition awarded by the American Nurses Credentialing Center (ANCC). The program has expanded to include Physician Assistants and is in its tenth cohort. It is supported by the UCSF Office of Advanced Practice Providers, UCSF Medical Center, and the UCSF School of Nursing. In March of 2024, it was awarded its first Accreditation with Distinction through the ANCC's new credential, Advanced Practice Provider Fellowship Accreditation (APPFA). The program accepts Adult-Gerontology Acute Care Nurse Practitioners and Physician Assistants.

For more information: npfellowship.ucsf.edu/about-the-program (https://npfellowship.ucsf.edu/about-the-program/)
Contact and questions: surgNPfellowship@ucsf.edu

#### **UCSF Cancer Services Nurse Practitioner Fellowship**

The UCSF Cancer Services Nurse Practitioner Fellowship is midway through its first cohort and will be applying for ANCC accreditation in 2023. The fellowship has tremendous support from UCSF Health, UCSF Cancer Services, the UCSF Office of Advanced Practice Providers, and the UCSF School of Nursing. The program accepts Adult or Family advanced practice registered nurses with certification from ANCC (AG-ACNP, AG-PCNP, or FNP) or AANP (AG-PCNP).

For more information: cancer.ucsf.edu/nurse-practitioner-fellowship (https://cancer.ucsf.edu/nurse-practitioner-fellowship/)
Contact and questions: cancerNPfellowship@ucsf.edu

## **Emergency Medicine Advanced Practice Provider Fellowship**

The fellowship is sponsored by the UCSF Office of Advanced Practice Providers, UCSF Medical Center, and UCSF School of Nursing. The fellowship is a 12-month transition to practice program for new graduate Nurse Practitioners (NPs) and Physician Assistants (PAs). It is designed to expand on the knowledge and skills acquired during graduate or doctoral NP/PA programs. The UCSF APP ED Transition to Practice Fellowship features clinical rotations, didactic education, mentorship, and a scholarly project. The program is led by the Office of Advanced Practice Providers and an experienced team of emergency department APPs who orient and train fellows in the clinical skills, institutional values, and expectations necessary to successfully provide care as an APP in the UCSF Medical Center Emergency Department.

For more information: https://advancedpractice.ucsf.edu/emergency-medicine-fellowship (https://advancedpractice.ucsf.edu/emergency-medicine-fellowship/)

Contact and questions: EmergencyDeptAPPFellowship@ucsf.edu

## Occupational and Environmental Medicine Residency

Visit program website. (https://oem.ucsf.edu/residency-and-other-education/residency-program/)

#### Program Leadership:

Gina Solomon, MD, MSPH, Program Director Robert Harrison, MD MPH, Associate Program Director **Program Contact:** 

Lucia Wang, Program Administrator

#### Address:

Occupational and Environmental Medicine School of Medicine University of California, San Francisco Zuckerberg San Francisco General Hospital 1001 Potrero Ave Box 0843 San Francisco, CA 94110

#### Phone:

(415) 747-7628

## Program Description Introduction

The Occupational and Environmental Medicine (OEM) program is is a twoyear ACGME-accredited residency program offered by the UCSF School of Medicine. The Occupational and Environmental Medicine rotation at the San Francisco Veterans Affairs Health Care Center (SFVAHCS) offers a variety of clinical experiences including: general occupational medicine occupational health services for VAMC employees; infectious disease (with an important component of COVID-19 assessment and return to work post illness), compensation and pension determinations; returning veterans assessments; and environmental medicine clinics (including for veterans with Agent Orange exposure and Gulf War Syndrome). In addition, interaction with the VAMC safety unit (industrial hygiene) is encouraged. Participation in a quality improvement project is a required activity as part of this rotation and has led to multiple peer-reviewed publications for participating residents.

The rotation at the SFVAHCS is a key part of overall UCSF residency. The UCSF Occupational and Environmental Medicine (OEM) Training Program prepares physicians for occupational and environmental medicine practice and leadership roles including in clinical, academic, governmental units, NGOs, consulting, and corporate settings. The program provides academic didactic instruction, clinical and non-clinical proctored experiences, and research opportunities. A large core and affiliated faculty based at UCSF, together with extramural clinical faculty and other preceptors, and our faculty partners in nursing, industrial hygiene, and ergonomics, provide this training. Graduates of the UCSF OEM program are currently leaders in all of the practice settings listed above. Trainees will achieve competency in all core knowledge content areas in OEM, and are encouraged to develop areas of special expertise. In keeping with this goal, the educational program is individually tailored to meet the needs of each trainee.

## **Educational Program (Basic Curriculum)**

The UCSF Occupational and Environmental Medicine (OEM) residency is constituted as an integrated, 2-year program in which the trainees progressively take on greater responsibility and achieve core competencies according to the Milestones delineated by the American

College of Preventive Medicine and the ACGME. There are three curricular components: didactic, clinical experiential, and non-clinical experiential learning opportunities. All three components are central to the mission of the program and each contributes to advancement within the milestones for OEM. This Executive Summary covers the Didactic Curriculum component. The overall educational Goals and Objectives of the OEM didactic curriculum are for trainees to progress in the common program and discipline specific ACGME milestones and also relevant American College of Occupational and Environmental Medicine (ACOEM) OEM "Core Competencies." To accomplish these goals and objectives, the trainee will complete the following didactic curriculum:

In the first year, trainees typically complete coursework to earn a Masters of Public Health (MPH) from the UC Berkeley School of Public Health. Entering trainees who already have an MPH or an equivalent degree and who have already completed a primary residency may matriculate as a second-year resident at the time of program entry. For entering residents who already have completed an MPH but do not matriculate at entry into the second year, the first-year curriculum will include a combination of clinical work (a minimum of 4 months) as well as other non-clinical rotations. The residents enroll in the Interdisciplinary MPH track, an accelerated, 11-month program. The program focuses on an interdisciplinary understanding of complex issues and the leadership challenges of successful interventions in public health. Core required coursework includes biostatistics, epidemiology, health services management and administration, environmental health, social and behavioral influences on health, and public health leadership (newly added in 2021). The Preventive Medicine Seminar (led by Dr. George Rutherford) includes a component of quality improvement training. Residents not enrolled at the School of Public Health are encouraged to audit this offering as possible. Additional graduate-level didactic content beyond the MPH addresses: 2. Industrial hygiene (both years): 3. Clinical epidemiology (first year); 4. An academic year-long (September-June) twice-monthly program of Grand Rounds, Clinical Conference and Journal Club; 5. A year-long weekly resident conference held at noon; 5. Risk/ hazard assessment and communication (offered every other year for all residents); 6. Toxicology (first year); 7. The annual two-and-a-half-day UCSF Division of OEM CME yearly in March, addressing a wide range of OEM content; 8. Occupational case management (offered every other year for all residents); 9. Mentored, dedicated research with protected time.

A month-long program (August each of two years) features industry site visits. Theses provide an industrial hygiene (IH)-focused curriculum including a range of industrial and non-industrial workplaces, as well as environmental health site visits. The trainees are expected to observe and record occupational and environmental hazards and the corresponding control measures. Each trainee is expected to do preparatory research prior to at least two of the site visits, and to brief their colleagues on the occupational and environmental health issues related to that industry. In addition, each trainee is expected to complete at least two writeups after the site visits to summarize the hazards and risks, and to communicate recommendations. Site visits include a wide range of industries and environmental sites in the greater San Francisco Bay Area. Examples include: refineries, metals manufacturing, foundries, cement manufacturing, pharmaceutical and biotech facilities, research laboratories, sewage treatment facilities, waste handling facilities, distribution centers, food processing, dairies, farms, wineries, nail salons, and construction sites.

Additionally, in August (typically the first year), trainees participate in the Workshop in Clinical Epidemiology at UCSF that provides grounding in applied biostatistics, epidemiology, and clinical study design. Online training on research ethics involving human subjects is also required. Training in research methods and development of research projects is a vital element of our program. The program seeks trainees who will advance the scientific knowledge based upon which the prevention and treatment of occupational disease rests, as well as those who will educate future generations of researchers. This work can also feed into later MPH capstone projects.

Throughout both residency years, trainees attend twice-monthly OEM Grand Rounds (GR), followed by either Journal Club led by an OEM resident or a Clinical Seminar in which faculty share unusual or challenging management issues. The OEM GR lecture series is accredited by UCSF CME. Attendees include OEM residents and faculty, as well as interdisciplinary colleagues from the UCSF OEH Nursing program. In their second year, each resident is expected to give a GR presentation. Monthly resident-led Journal Club fosters the ability of residents to make critical appraisals of the biomedical literature. The presenting resident selects a relevant publication (vetted by Drs. Solomon or Balogun) and leads a discussion on methods, interpretation, and impact of reported findings. Monthly Clinical Conference provides a forum for associated faculty to present clinical challenges (broadly defined) in an informal, small group setting. Topics include difficult cases, management challenges, unusual cases and outbreaks, at-risk low-wage workers, and other experientialbased presentations. Also, throughout both residency years, trainees also participate in a weekly noon conference (by Zoom or in person at clinic) that includes resident-led case presentations or cases seen at clinic, interactive presentations on basic OEM material, presentations on more complex subjects, and a mixture of feedback, board review, and other organizational matters.

A risk/hazard assessment and communication is offered in the Fall every other year for all residents. It was offered in October 2021. This workshop is case-based and participatory. It is led by faculty with particular expertise in this area, led by Dr. Gina Solomon, MD MPH. Toxicology 180 is a cross-disciplinary course (first year OEM residents and graduate OEH nursing students), led by Dr. Rahmat Balogun. It covers basic principles of toxicology (routes of exposure, biological monitoring, toxicokinetics, toxicodynamics, classes of toxicants, organ system toxicology). Case- based learning features faculty members with expertise in clinical toxicology, respiratory medicine, dermatology, hepatology, neurology, reproductive medicine, and carcinogenesis. On-line modules, preparation of a chemical toxicity review, and presentation of a paper concerning an occupational or environmental exposure incident are included. Management of Clinical Occupational Health Problems is an interdisciplinary course that is co-taught by occupational medicine (Paul Blanc, MD MSPH) and a nursing faculty member (Sandra Domeracki, NP). It emphasizes integrated management of occupational health problems using the case-based teaching approach. It is taught in the spring academic quarter, alternate years and is next offered in the Spring Quarter, 2025.

The annual OEM CME offering provides a key didactic educational component for our OEM residents. It is organized in a two-and-a-half-day format that includes one day devoted to a focused topic, followed by one and a half days of an update covering a range of OEM content. The evening prior to their course features a poster session with abstracts related to the meeting theme. It is a program expectation that each resident (individually or working in pairs) presents a poster and participates in the full course that follows. It is next offered in March 2022. Mentored independent research provides residents with the opportunity to garner valuable experience in conducting research and presenting their findings. It includes two months of protected research

time. Scholarly work-products include outreach presentations, meeting abstracts, and peer reviewed publications.

## Types of Rotations and Educational Activities

In the first year, trainees typically complete coursework to earn a Masters of Public Health (MPH) from the UC Berkeley School of Public Health while also participating in a weekly clinic and other UCSF clinical activities (full time rotations July and mid-May through June and periodic needle stick coverage) to meet ACGME requirements for four months of clinical activity per training year. Under certain circumstances, the MPH training may occur later in the training cycle. Selected trainees who already have an MPH or an equivalent degree and who have already completed a primary residency may matriculate as a second-year resident at the time of program entry. For entering residents who already have completed an MPH but do not matriculate at entry into the second year, the first-year curriculum will include a combination of clinical work (a minimum of four months) as well as other non-clinical rotations. The second year is devoted to a combination of clinical experience (four months), non-clinical rotations, and research. A typical breakdown of the trainees' activities by year is shown below:

#### First Year

- 1 month of special programming (August) including industry site visits and clinical work plus didactic training. Training in Clinical Research Course occurs in August as well.
- · 8 months UC Berkeley School of Public Health coursework
- Weekly half-day clinic throughout year and 3-4 weeks of occupational clinical needlestick hotline coverage (nights and weekends)
- 2½ months of additional full-time clinical rotations (July; mid-May through June)

#### **Second Year**

- 1 month of special programming (August) including industry site visits and clinical work plus didactic training
- Weekly half-day clinic throughout year and 3-4 weeks of occupational clinical needlestick hotline coverage (nights and weekends)
- · 2½ to 4 months of additional full-time clinical rotations
- 1-4 months non-clinical rotations including corporate or consulting and public and environmental health
- · 2 months of research

## **Instructors and Resources**

The UCSF OEM Residency Program has a wealth of clinical and research faculty distributed throughout UCSF and its associated hospitals listed below. Education within the program and supervision of trainees are the focus of the majority of the faculty.

#### **Teaching Staff**

- Sandeep Guntur, MBBS, MD, MPH, Associate Clinical Professor, Interim Director, Employee Health Department of Medicine San Francisco VAHCS Occupational and Environmental Medicine (OEM)
- Paul Blanc, MD MSPH, Professor of Medicine, Chief Division of Occupational, Environmental and Climate Medicine, Department of Medicine, SFVAHCS and UCSF, OEM, Internal Medicine, Medical Toxicology

- Samuel Goldman, MD MPH, Professor of Clinical Medicine, Division of Occupational, Environmental and Climate Medicine, Department of Medicine, SFVAHCS and UCSF, Preventive Medicine
- Amy Heinzerling MD MPH, Assistant Professor of Medicine, Division of Occupational, Environmental and Climate Medicine, Department of Medicine, SFVAHCS and UCSF, Internal Medicine

#### **Instructional Facilities**

The main facilities, which offer a wide depth and breadth of clinical and research experiences and training, where the trainees practice and see patients are:

- · Bay Area Air Quality Management District: Non#clinical experiential
- · Thomas Allems: Clinical experiential
- California Division of Occupational Safety and Health: Non#clinical experiential
- · California Department of Public Health: Non#clinical experiential
- · Richard Cohen: Non#clinical experiential
- · Concentra: Clinical experiential
- · Center for Environmental Health: Non#clinical experiential
- Dept. of Industrial Relations, Division of Workers: Non#clinical experiential
- Environmental Health Investigations Branch: Non#clinical experiential
- Federal Division of Occupational Safety and Health: Non#clinical experiential
- · Michael Fischman: Non#clinical experiential
- · ZSFG Federally Qualified Health Center. Clinical experiential
- · UC Fresno Employee Health: Clinical experiential
- · Kaiser Injury: Clinical experiential
- Kaiser Permanente Medical Center (San Francisco): Clinical experiential
- Kaiser Permanente Medical Center (Oakland): Non#clinical experiential
- · Lawrence Berkeley National Laboratory: Clinical experiential
- · Lawrence Livermore National Laboratory: Clinical experiential
- · Labor Occupational Health Program: Non#clinical experiential
- National Institute for Occupational Safety and Health: Non#clinical experiential
- · National Resource Defense Council: Non#clinical experiential
- California EPA, Office of Environmental Health Hazard Assessment: Non#clinical experiential
- San Francisco Pediatric Environmental Health Specialty Unit (PEHSU): Clinical experiential
- · Poison Control Center. Clinical experiential
- Research (Fellow/Resident): Non#clinical experiential
- MPH/MS: Non#clinical experiential
- · Veterans Affairs Medical Center (San Francisco): Clinical experiential
- · Work Well Medical Group: Clinical experiential
- · Zenith Insurance: Non#clinical experiential
- · San Francisco General Hospital Medical Center. Clinical experiential
- Employee Health ZSFG & MZ: Clinical experiential
- David Claman UCSF Pulmonary (multispecialty rotation): Clinical experiential
- Jonathan Rutchik MD, Neurology private practice (multispecialty rotation): Clinical experiential

- · UCSF Dermatology (multispecialty rotation): Clinical experiential
- UCSF Sports Medicine (multispecialty rotation): Clinical experiential
- University Health Services Tang Center (multispecialty rotation): Clinical experiential
- Osher Center Mount Zion UCSF (multispecialty rotation): Clinical experiential
- Kaiser SF Ophthalmology (multispecialty rotation): Clinical experiential
- · Kaiser Allergy (multispecialty rotation): Clinical experiential

## **Entrance Requirements**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME eligibility policy applies to all residency and fellowship programs and may be found in the 2023-2024 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202023-2024%20102323.pdf).

The program specific policies may be found at: oem.ucsf.edu/residency-and-other-education/residency-program (https://oem.ucsf.edu/residency-and-other-education/residency-program/).

### **Policies**

#### **Enrollment Policy**

In accordance with ACGME requirements for graduate medical education, UCSF School of Medicine GME policies apply to all residency and fellowship programs and may be found in the 2023-2024 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202023-2024%20102323.pdf).

#### **Credit Evaluation Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME supervision, evaluation, and other policies apply to all residency and fellowship programs and may be found in the 2023-2024 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202023-2024%20102323.pdf).

The program specific supervision, communication/escalation, and evaluation policies address the different levels of training and may be found at: oem.ucsf.edu/residency-and-other-education/residency-program (https://oem.ucsf.edu/residency-and-other-education/residency-program/). Each program has a multisource learner assessment program in accordance with ACGME, UCSF GME, and program policies and requirements.

All faculty and trainees are educated about fatigue in GME training and adept at recognizing fatigue in themselves and others. In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME fatigue mitigation policy applies to all residency and fellowship programs and may be found in the 2023-2024 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202023-2024%20102323.pdf).

#### **Attendance Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME leave policy, which addresses vacation, sick, parental, and other leave, applies to all residency and fellowship programs and may be found in the 2023-2024 Housestaff

Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202023-2024%20102323.pdf).

- Absence: Refer to the GME leave policy in the 2023-2024
   Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202023-2024%20102323.pdf).
- Tardiness: Fellows are expected to contact their site preceptor by 8:30 a.m. to indicate if they will be late or absent that day for any reason, notify the Chief resident, and to document absence in the MedHub system.
- Interruption for Unsatisfactory Attendance: Interruption for unsatisfactory attendance is address through the established UCSF GME disciplinary mechanisms noted elsewhere in this document.
   Fellows taking more than the allowed vacation/sick time may be required to extend their fellowship past the normal graduation date.
- Cutting Classes: Fellows must attend a minimum of 70% of conferences during their fellowship and unsatisfactory attendance will be reviewed at the semi-annual Clinical Competency Committee. If needed the fellow will be put on a remediation plan until the situation is rectified.
- Make-up Work: Missed conferences that have been recorded will be available for later viewing. Other missed conferences are made up at the discretion of the program director.
- Leave of Absence: Refer to the GME leave policy in the 2023-2024 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202023-2024%20102323.pdf).

#### **Policy on Academic Progress**

The medical education of physicians to practice independently is experiential and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge and attitudes leading to proficiency in all the domains of clinical competency requires the resident and fellow physician to assume personal responsibility for the care of individual patients. For the resident and fellow, the essential learning activity is interaction with patients under guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents and fellows gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept - graded and progressive responsibility - is one of the core tenets of American GME. Supervision in the GME setting has the goals of assuring the provision of safe and effective care to the individual patient; assuring each resident or fellow's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

The program director is responsible for the content and conduct of all educational activities at all teaching sites.

Trainee performance and progress are evaluated by program faculty verbally and in writing with progression consistent with ACGME milestones assessed twice yearly by the Clinical Competency Committee and further reviewed by the Residency Advisory Committee. These formal mechanisms are in place for monitoring and documenting each trainee's acquisition of fundamental knowledge and clinical skills and overall performance throughout the academic year.

Trainees are supervised by faculty and given regular feedback on their performance in real-time and at regular intervals from the program director or associate program director with input from the Clinical

Competency Committee (CCC), as noted. If a trainee is not meeting expectations or experiencing difficulties, the program director will determine if remediation is needed.

In the event academic action is necessary, policies and procedures must follow the UCSF GME academic due process policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf).

## **Trainee Responsibilities**

UCSF residents and fellows are expected to:

- Develop a personal program of self-study and professional growth with guidance from the faculty;
- Participate in safe, effective, and compassionate patient care under supervision commensurate with their level of advancement and responsibility;
- Participate fully in the educational and scholarly activities of their program and as required, assume responsibility for teaching and supervising other residents, fellows, and students;
- Participate in institutional programs and activities involving the medical staff and adhere to established practices, procedures, and policies of the institution;
- Participate in institutional committees and councils, especially those that relate to patient care activities;
- Participate in evaluation of the quality of education provided by the program;
- Develop an understanding of ethical, socioeconomic, and medical/ legal issues that affect graduate medical education and how to apply cost containment measures in the provision of patient care;
- · Comply with established ethical behavior and practices;
- Adhere to federal, state, and campus deadlines and requirements regarding licensure and registration for the practice of medicine;
- Respond to the Office of GME (OGME) and the home program/ department for information related to position/rank and function;
- Adhere to all departmental, School of Medicine, GME, and ACGME policies and procedures.

## **Benefits/Leave**

UCSF residents and fellows are entitled to four (4) work weeks of vacation, 12 sick days, and eight weeks of paid parental leave annually. Find more information about trainee leaves (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=56).

Time spent away from the program may impact program completion per American Board requirements. Programs are required to provide timely notice of the effect of leave(s) on the ability of trainees to satisfy requirements for completion.

## **UCSF Hospital System Responsibilities**

- Sleep rooms and lounges: Sleep rooms and lounges for residents and fellows are provided at rotation sites. They may use for overnight call and napping.
- · Uniforms: One long white coat is issued to new residents.
- Work Hours: UCSF GME work hour policy applies to all residents and fellows and may be found in the 2023-2024 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inlinefiles/Housestaff%20Info%20Booklet%202023-2024%20102323.pdf).

- Communication: Pagers, email addresses, and access to the UCSF network are provided to all residents and fellows when they start their training.
- Library: All trainees have access to the UCSF library, both in-person and online. They also have access to libraries at the sites in which they rotate.

#### **Salaries**

Trainee salaries are determined through collective bargaining with CIR-SEIU Healthcare, the exclusive representative of UCSF residents and fellows. If program policy allows, trainees may elect to moonlight. Find the UCSF GME moonlighting policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202023-2024%2003-20-2024.pdf) in the 2023-2024 Housestaff Information Booklet.

## Oral and Maxillofacial Surgery Residency

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/omfs/)

## **Program Description**

The Department of Oral and Maxillofacial Surgery at UCSF is a six-year MD integrated residency program which provides comprehensive clinical and didactic training in the field of oral and maxillofacial surgery. Our mission is to provide excellent patient care, and train our residents to become highly skilled, knowledgeable, and compassionate health care providers. We are a full scope surgical training program providing services that include:

- · Dental extractions and dentoalveolar surgery
- · Dental implants
- · Adult and pediatric outpatient sedation and anesthesia
- · Orthognathic and sleep surgery
- · Craniofacial surgery
- · Maxillofacial trauma
- · Benign maxillofacial pathology and reconstruction
- TMJ surgery
- · Nerve repair surgery

### **Additional Information**

Contact for questions and additional info:

Sohail Saghezchi, DDS, MD, FACS - Program Director (sohail.saghezchi@ucsf.edu)

## Pathology and Laboratory Medicine Residency

Visit program website. (https://pathology.ucsf.edu/training/residency/)

#### Program Leadership:

Sarah Calkins, MD, Program Director Kristie White, MD, Associate Program Director

#### **Administrative Staff:**

Kirsten Dahmen, Program Administrator Brittney Augerlavoie, Residency Program Coordinator

#### Address:

UCSF Pathology and Laboratory Medicine Residency Program School of Medicine University of California, San Francisco 505 Parnassus Avenue, M580 San Francisco, CA 94143

#### Phone:

415.353.7359

#### Email:

kirsten.dahmen@ucsf.edu

## **Program Description**

#### Introduction

The UCSF Pathology and Laboratory Medicine Residency Program is a 4-year ACGME accredited residency program. The Departments of Pathology and Laboratory Medicine collaborate to support world-class training for residents in anatomic pathology (AP), clinical pathology (CP), combined anatomic and clinical pathology (AP/CP), and combined anatomic pathology and neuropathology (AP/NP). Trainees have numerous fellowship and postdoctoral research opportunities and have a track record of success in securing desirable jobs in academia, private practice and industry.

#### **Educational Program (Basic Curriculum)**

Multiple training tracks for education are available to trainees, including combined anatomic and clinical pathology (AP/CP), AP-only, CP-only, and AP/Neuropathology.

The Department of Pathology provides the UCSF-affiliated hospitals with diagnostic services in general surgical pathology and autopsy pathology, as well as in a variety of subspecialty areas, including cytopathology, hematopathology, dermatopathology, neuropathology, cardiac pathology, transplant pathology, gastrointestinal and liver pathology, renal pathology, and obstetric-gynecologic pathology. The diverse backgrounds and research interests of the faculty have led to many extramural awards, including funded projects in cancer biology, liver disease, immunology, molecular-cell biology, hematopathology, microbiology, biochemistry, parasitology and tropical medicine. It is this eclectic mix that forms the basis of the expert patient-care and research training offered by the Department of Pathology.

Residents in anatomic pathology rotate through the five university-affiliated hospitals: UCSF Helen Diller Medical Center at Parnassus Heights, UCSF Medical Center at Mission Bay, UCSF Medical Center at Mount Zion, San Francisco VA Health Care System (SFVA), and Zuckerberg San Francisco General Hospital (ZSFG). In the first year, residents typically spend a majority of the year in basic surgical pathology and autopsy pathology rotations. Currently, our AP trainees have one month of elective time per year, which can be used to gain

additional focused experience in subspecialties in both the Department of Pathology and the Department of Laboratory Medicine. Second-year AP residents have a variety of surgical pathology, cytology, dermatopathology, and molecular pathology rotations. Additionally, they serve as chief residents at ZSFG and SFVA. A structured didactic lecture series for residents is held three times a week to complement the exposure to clinical material gained from weekly slide conferences and clinical rotations. Residents also have numerous opportunities to engage in clinical research projects during residency and to present their findings at regional and national meetings.

In the Department of Laboratory Medicine, residents also rotate through the clinical laboratories of UCSF, the Zuckerberg San Francisco General Hospital, and the San Francisco VA Health Care System. These hospitals have diverse patient populations and provide a remarkably varied clinical experience for our training program. Rotations are available in microbiology, hematology/hematopathology, transfusion medicine, cellular therapy, clinical chemistry, molecular diagnostics/cytogenetics, laboratory management, and immunology. Five months out of the two years is devoted to elective time and includes opportunities for electives at institutions other than UCSF. Residents also receive structured didactic training in clinical epidemiology, transfusion medicine, hematology, informatics, immunology, clinical chemistry, molecular diagnostics, microbiology and laboratory management.

Clinical responsibilities of residents include an "on call" system for clinical consultation on test indications, interfering factors and test interpretation, familiarization with analytical methodology and quality control, and teaching of medical students and technologists.

Teaching opportunities are also available to residents during their training. Housestaff assist the instructors in the laboratories in medical-student pathology courses, medical student small groups, and ongoing laboratory technician continuing education courses. Residents also present interesting autopsy and surgical pathology cases at a variety of intra- and interdepartmental conferences. All residents present cases and recent research findings on subjects of their choice once a year at the Department of Pathology Grand Rounds Conference.

#### **Detailed Instructional Schedule**

- Surgical pathology
- Autopsy pathology
- · Cytopathology
- Dermatopathology
- · Hematology and Hematopathology
- Neuropathology
- Microbiology
- Transfusion Medicine
- Chemistry
- Immunology
- Molecular pathology
- · Laboratory Management

## Instructors/Resources

The UCSF Pathology and Laboratory Medicine Residency Program has a wealth of clinical and research faculty distributed throughout UCSF and its associated hospitals listed below. Education within the program and supervision of trainees are the focus of the majority of the faculty.

#### **Instructional Facilities**

The main facilities, which offer a wide depth and breadth of clinical and research experiences and training, where the trainees practice and see patients are:

- UCSF Helen Diller Medical Center at Parnassus Heights, San Francisco, California
- Mission Bay (UCSF Benioff Children's Hospital, UCSF Betty Irene Moore)
- Women's Hospital, UCSF Bakar Cancer Center, San Francisco, California
- · UCSF Mt. Zion Hospital, San Francisco, California
- · China Basin UCSF Campus, San Francisco, California
- · Zuckerberg San Francisco General Hospital, San Francisco, California
- · Veterans Affairs Medical Center, San Francisco, California

## **Entrance Requirements**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME eligibility policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

The program specific policies may be found at: pathology.ucsf.edu/training/residency/application (https://pathology.ucsf.edu/training/residency/application/).

### **Policies**

## **Enrollment Policy**

In accordance with ACGME requirements for graduate medical education, UCSF School of Medicine GME policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Credit Evaluation Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME supervision, evaluation, and other policies apply to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf).

The program specific supervision, communication/escalation, and evaluation policies address the different levels of training and may be found at: pathology.ucsf.edu/training/residency/application (https://pathology.ucsf.edu/training/residency/application/). Each program has a multisource learner assessment program in accordance with ACGME, UCSF GME, and program policies and requirements.

All faculty and trainees are educated about fatigue in GME training and adept at recognizing fatigue in themselves and others. In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME fatigue mitigation policy applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/

meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Attendance Policy**

In accordance with ACGME requirements for graduate medical education, the UCSF School of Medicine GME leave policy, which addresses vacation, sick, parental, and other leave, applies to all residency and fellowship programs and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

- Absence: Refer to the GME leave policy in the 2022-2023
   Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).
- Tardiness: Residents are expected to contact the program by 7:30

   a.m. to indicate if they will be late or absent that day for any reason.
- Interruption for Unsatisfactory Attendance: Residents taking additional time off are required to make up all additional time to satisfy the American Board of Pathology's requirements to graduate.
- Cutting Classes: Residents must attend a minimum of 70% of conferences during their fellowship and unsatisfactory attendance will be reviewed at the semi-annual Clinical Competency Committee. If needed the fellow will be put on a remediation plan until the situation is rectified.
- Make-up Work: Missed conferences are made up at the discretion of the program director.
- Leave of Absence: Refer to the GME leave policy in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).

#### **Policy on Academic Progress**

The medical education of physicians to practice independently is experiential and necessarily occurs within the context of the health care delivery system. Developing the skills, knowledge and attitudes leading to proficiency in all the domains of clinical competency requires the resident and fellow physician to assume personal responsibility for the care of individual patients. For the resident and fellow, the essential learning activity is interaction with patients under guidance and supervision of faculty members who give value, context, and meaning to those interactions. As residents and fellows gain experience and demonstrate growth in their ability to care for patients, they assume roles that permit them to exercise those skills with greater independence. This concept - graded and progressive responsibility - is one of the core tenets of American GME. Supervision in the GME setting has the goals of assuring the provision of safe and effective care to the individual patient; assuring each resident or fellow's development of the skills, knowledge, and attitudes required to enter the unsupervised practice of medicine; and establishing a foundation for continued professional growth.

The program director is responsible for the content and conduct of all educational activities at all teaching sites.

Trainee performance and progress are evaluated by program faculty verbally and in writing with progression consistent with ACGME milestones assessed twice yearly by the Clinical Competency Committee and further reviewed by the Residency Advisory Committee. These formal mechanisms are in place for monitoring and documenting each trainee's

acquisition of fundamental knowledge and clinical skills and overall performance throughout the academic year.

Trainees are supervised by faculty and given regular feedback on their performance in real-time and at regular intervals from the program director (or their designee) and the Clinical Competency Committee (CCC). If a trainee is not meeting expectations or experiencing difficulties, the program director will determine if remediation is needed.

In the event academic action is necessary, policies and procedures must follow the UCSF GME academic due process policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff %20Info%20Booklet%202022-2023%20rev09.2022.pdf).

## **Trainee Responsibilities**

UCSF residents and fellows are expected to:

- Develop a personal program of self-study and professional growth with guidance from the faculty;
- Participate in safe, effective, and compassionate patient care under supervision commensurate with their level of advancement and responsibility;
- Participate fully in the educational and scholarly activities of their program and as required, assume responsibility for teaching and supervising other residents, fellows, and students;
- Participate in institutional programs and activities involving the medical staff and adhere to established practices, procedures, and policies of the institution;
- Participate in institutional committees and councils, especially those that relate to patient care activities;
- Participate in evaluation of the quality of education provided by the program;
- Develop an understanding of ethical, socioeconomic, and medical/ legal issues that affect graduate medical education and how to apply cost containment measures in the provision of patient care;
- · Comply with established ethical behavior and practices;
- Adhere to federal, state, and campus deadlines and requirements regarding licensure and registration for the practice of medicine;
- Respond to the Office of GME (OGME) and the home program/ department for information related to position/rank and function;
- Adhere to all departmental, School of Medicine, GME, and ACGME policies and procedures.

## **Benefits/Leave**

UCSF residents and fellows are entitled to four (4) work weeks of vacation, 12 sick days, and eight weeks of paid parental leave annually. Find more information about trainee leaves (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=56).

Time spent away from the program may impact program completion per American Board requirements. Programs are required to provide timely notice of the effect of leave(s) on the ability of trainees to satisfy requirements for completion.

## **UCSF Hospital System Responsibilities**

 Sleep rooms and lounges: Sleep rooms and lounges for residents and fellows are provided at rotation sites. They may use for overnight call and napping.

- · Uniforms: One long white coat is issued to new residents.
- Work Hours: UCSF GME work hour policy applies to all residents and fellows and may be found in the 2022-2023 Housestaff Information Booklet (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet %202022-2023%20rev09.2022.pdf).
- Communication: Pagers, email addresses, and access to the UCSF network are provided to all residents and fellows when they start their training.
- Library: All trainees have access to the UCSF library, both in-person and online. They also have access to libraries at the sites in which they rotate.

#### **Salaries**

Trainee salaries are determined through collective bargaining with CIR-SEIU Healthcare, the exclusive representative of UCSF residents and fellows. If program policy allows, trainees may elect to moonlight. Find the UCSF GME moonlighting policy (https://meded.ucsf.edu/sites/meded.ucsf.edu/files/inline-files/Housestaff%20Info%20Booklet%202022-2023%20rev09.2022.pdf#page=59) in the 2022-2023 Housestaff Information Booklet.

## **Pharmacy Residency Program**

Visit program website. (https://pharm.ucsf.edu/residencies/)

## **Program Description**

The postgraduate pharmacy residency program builds on Doctor of Pharmacy (PharmD) education and outcomes to contribute to the development of clinical pharmacists responsible for medication-related care of patients with a wide range of conditions. Pharmacy residents take on the role of clinical pharmacists and provide care to patients in a variety of patient care settings under the guidance of skilled preceptors. Residents grow exponentially in their clinical skills and gain experience in teaching, research, pharmacy operations, and medication use policy and evaluation. The program places an emphasis on the provision of pharmaceutical care in many patient care areas, research and teaching of pharmacy students and health care practitioners.

#### **Additional Information**

Contact for questions and additional info:

Mandy Brown, PharmD, BCPS, BCCCP, DPLA PGY1 Residency Program Director mandy.brown@ucsf.edu

Melissa Nakapa'ahu, MS-HCA Residency Program Administrator melissa.nakapaahu@ucsf.edu

## **Prosthodontics Residency**

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/prosthodontics/)

## **Program Description**

### **Program Goals and Objectives**

- To prepare individuals to be competent in the practice of prosthodontics.
- To prepare individuals to provide appropriate patient care based upon the patient's unique circumstances.
- To prepare individuals to provide interdisciplinary care of patients through interactions and co-therapy with relevant dental and medical specialists.
- d. To prepare individuals to teach prosthodontics in predoctoral, postgraduate, and continuing dental educational programs.
- e. To promote the development of scholarship and critical thinking by introducing graduates to research methods and activities.
- f. To prepare graduates for certification by the American Board of Prosthodontics and to encourage them to achieve certification.

#### **Additional Information**

Contact for questions and additional info:

Dr. Arun Sharma, Program Director (arun.sharma@ucsf.edu)

## **UCSF Fresno Obstetrics/Gynecology Residency**

Visit program website. (https://www.fresno.ucsf.edu/obstetricsgynecology/)

#### Program Leadership:

Amy Autry, MD, Program Chief Christopher Downer, MD, Program Director

#### **Administrative Staff:**

Kendra Perret, Program Supervisor

#### Address:

155 N Fresno Street Fresno, CA 93701

#### Phone:

559.499.6400

#### Email:

fresno-obgyn@ucsf.edu

## **Program Description**

It is the mission of the UCSF Fresno Department of Obstetrics and Gynecology to promote women's health in Central California by providing innovative and excellent patient care while training the next generation of physicians and advancing patient-centered research while serving our culturally diverse and medically underserved patient population. Our mission aligns with our sponsoring institution's mission to improve the health of the San Joaquin Valley through teaching, patient care, research and community partnership.

Our accredited academic program blends evidence-based clinical training, in-vivo and laboratory based simulation, research, and formal didactic educational experiences to prepare graduates for private practice, academic positions, or subspecialty fellowships. We are a branch campus and major teaching site of the University of California, San Francisco, School of Medicine, teaching 3rd year OB/GYN clerkships as well as 4th year elective students in general OB/GYN as well as maternal and fetal medicine. Our faculty members hold appointments at the University of California, San Francisco, School of Medicine, and have received numerous awards for distinction in teaching.

The residency program is based at Community Regional Medical Center, a 685-bed regional academic medical center that serves a large and diverse patient population. Our hospital is the only tertiary care center in our region and operates the largest emergency room in California and the only level one trauma center between Los Angeles and Sacramento. Close to 5000 births occur annually at CRMC, and high risk OB patients are referred from 15 hospitals in a region delivering 50,000 babies per year. There are future plans to add another 100 beds to the medical center as well as to build an 800 bed replacement hospital with a Women and Children's Tower.

The Obstetrics and Gynecology Residency Program at UCSF Fresno is committed to serving women's health care needs by providing a wide range of routine, complex and highly individualized services. From basic obstetrical and gynecological care to high-risk prenatal care and delivery management and urinary incontinence evaluation and treatment. As the only referral center for a 100 mile radius, we provide care to many underserved patients in both rural and urban communities. Community

Regional Medical Center strives to provide the support we need to care for our patients including: a state-of-the-art Emergency Department; Cyber knife; 84 bed level III NICU; 22 bed L & D with three dedicated ORs; and dual console da Vinci Robot surgical system.

## **Instructors/Resources**

#### **Teaching Staff**

- · Christopher Downer, MD, Program Director
- · Pamela Emeney, MD, Associate Clinical Professor
- · Subhashini Ladella, MD, Clinical Professor
- · Brian Morgan, MD, PhD, Clinical Professor
- · Michael O'Shaughnessy, MD, MA, Associate Clinical Professor
- · Carlos Sueldo, MD, Clinical Professor
- · Benjamin J. Steinberg, DO, Assistant Clinical Professor
- · Amy M. Autry, MD, Department Chief
- · Dennis DeSimone, DO, Assistant Clinical Professor
- · Alexandra (Jana) H. Freeman, MD, Assistant Clinical Professor
- · Trung Nguyen, DO, Assistant Clinical Professor
- · Monica Raible, MD, Assistant Clinical Professor
- · Jason Meade, DO, Assistant Clinical Professor
- · Julie Nicole, MD, Clinical Instructor- Site Director
- · Carolina M. Sueldo, MD, Assistant Clinical Professor
- Colleen Black, BSN, CNM, MSN, L&D Midwife
- · Julianne Jacober, CNM, MSN, L&D Midwife

## **Entrance Requirements**

The UCSF Fresno Obstetrics & Gynecology residency program is a four-year ACGME-accredited program. The program matches four PGY-1 residents each year.

The UCSF Fresno Obstetrics & Gynecology residency program participates in the National Resident Matching Program (http://www.nrmp.org/) (NRMP). All applications are handled through the Electronic Residency Application Service (https://www.aamc.org/services/eras/) (ERAS) sponsored by the Association of American Medical Colleges.

Find detailed information on eligibility and recruitment policy for UCSF Fresno residents and fellows (https://www.fresno.ucsf.edu/housestaffportal/documents/gmec/Eligibilityselectionrecruit.pdf).

## **Policies**

#### **Credit Evaluation Policy**

Evaluation policy for residents, fellows, faculty and residency/fellowship training programs at UCSF Fresno adheres to the ACGME requirements. Find details on evaluations policy (https://www.fresno.ucsf.edu/housestaffportal/documents/gmec/EvaluationPolicy.pdf).

#### Other Policies

Find information on other policies on the House Staff Portal Policies & Procedures (https://www.fresno.ucsf.edu/housestaff-portal/policies-procedures/) page.

## **Trainee Responsibilities**

The UCSF Fresno Medical Education Program is centered on the six core competencies of the ACGME. These competencies are reflected in all aspects of the training program. The goal of this competency-based

education is to graduate physicians who are competent to enter practice autonomously. To this end, several job responsibilities prepare the house staff for this aim:

- Fulfill all requirements established by the appropriate accrediting body; ACGME, Fellowship Council, AAST and/or CODA; UCSF Fresno, Bylaws and Rules and Regulations of the Medical Staff of facilities to which house staff may rotate.
- Perform all duties in accordance with the established practices, procedures, and policies of the institution, and those of its programs, clinical departments, and other participating sites to which the house staff is assigned, including California state licensure requirements for physicians in training.
- Perform all duties in compliance with applicable regulatory standards. This includes required licensing, knowledge base and education to ensure compliance with state, federal, JCAHO, Title XXII, and other guidelines.
- Participate in program improvement activities, committees, and councils, especially those that affect education or patient care at the program, institution or participating site level.
- Participate in safe, effective, and compassionate patient care under supervision commensurate with their level of advancement and responsibility and the knowledge of the limits of his/her scope of authority, and the circumstances under which he/she is permitted to act with conditional independence. Each house staff is responsible for communicating to the supervising faculty significant issues as they relate to patient care.
- Develop an understanding of ethical, socioeconomic, and medical/ legal issues that affect graduate medical education and how to apply cost containment measures in the provision of patient care assist both medical students and fellow house staff in meeting their professional obligations by serving as teachers and role models.
- Comply with established ethical behavior and practices.
- Inform the person(s) that the program designates in the case of an absence
- House staff are expected to develop a personal program of self-study and professional growth.
- Provide safe, effective and compassionate patient care under supervision commensurate with level of training and responsibility.
- Document all procedures and/or case logs according to their program requirements.
- Participate in the evaluation processes specified by the program/ institution.
- Complete medical record documentation that is timely, accurate and legible. Follow the participating sites policy regarding completion of medical records.
- Abide by work hour requirements as specified by the program/ institutional policy; accurately report work hours.
- · Satisfactorily complete all rotations.
- Be knowledgeable about rotation goals and objectives prior to the start of a rotation. Questions about goals and objectives of a rotation should be clarified with the supervising faculty.
- Participate fully in the educational and scholarly activities of the program. Expected levels of attendance for educational activities will be set by each program and these should be met.
- Report any breaches of standards and contribute to improvement processes.
- · Perform other related duties as assigned.

## **Benefits/Leave**

Residents are entitled to twenty (20) weekdays of vacation, 12 weekdays of sick days. Find more information about trainee leaves (https://www.fresno.ucsf.edu/housestaffportal/documents/gmec/LeavePolicy.pdf). Scheduling of leave is in accordance with the leave policy for house staff (https://www.fresno.ucsf.edu/housestaffportal/documents/gmec/LeavePolicy.pdf).

#### **Salaries**

Concurrent with appointment to UCSF Fresno, house staff are employees of UCSF. House staff are exempt, salaried employees of UCSF and are not eligible for overtime compensation or extra duty pay.

- Salary scales for house staff are established by the UC Office of the President (UCOP) and are consistent throughout the UC medical schools. Salary scales are reviewed annually by the UCSF Fresno GMEC. Employment packages describe Fresno pay and benefits.
- Salary amounts are contained in the UCSF Fresno appointment contract and are also available from each program office, the UCSF Fresno Graduate Medical Education office, or on the UCSF Fresno house staff portal site (https://www.fresno.ucsf.edu/Salary-and-Benefits.pdf).
- Information related to salary can be accessed through UC Path (https://ucpath.ucsf.edu/).

If program policy allows, trainees may elect to moonlight. Find the UCSF Fresno moonlighting policy (https://www.fresno.ucsf.edu/housestaffportal/documents/Housestaff\_Handbook.pdf#page=12) in the 2022-2023 UCSF Fresno House Staff Handbook.

## **UCSF-Genentech Clinical Development Fellowship**

Visit program website. (https://pharm.ucsf.edu/ucsf-genentech/)

## **Program Description**

The UCSF-Genentech Clinical Development Fellowship Program partners two top leaders in academic research and the biotechnology industry to provide an immersive, innovative, mentored, two-year experience combining academic clinical investigation and pharmaceutical industry training for PharmDs in early postdoctoral years. The objective of this program is to provide training in proper conduct of clinical trials, safety surveillance and risk management, methodologies, and exposure to scientific and ethical issues in research and development.

Fellows will work with research and clinical faculty members at UCSF—a world-renowned teaching institution that focuses on the health sciences—where they will participate in clinical research, patient care, learn via interdisciplinary didactics, and present and publish results of scholarly work.

In partnership with Genentech, a leading biotechnology company in serious or life-threatening medical conditions, fellows will gain experience in clinical development and build core competencies in clinical and safety sciences that will prepare them for an exciting career in the biotechnology/pharmaceutical industry.

#### Genentech training (~3 days/week)

- · Immersion in safety science (50%) and clinical science (50%)
- · Attendance at oncology focused professional conferences

#### UCSF training (1-2 days/week)

- Mentored experience in oncology clinical service on inpatient unit and/or Early Phase Development unit, with some clinical preceptorship duties
- Training in designing clinical research and responsible conduct of research
- Didactic training and research seminars on Principles of Clinical Pharmacology or special topics in oncology

#### Other Program Features and Details

- · Individualized training plan
- Quarterly multidisciplinary research seminars in collaborative, basic, and clinical research
- Leadership and skills development workshops with other UCSF fellows and residents

### **Additional Information**

Contact for questions and additional info:

Jennifer Cocohoba, PharmD Leslie Carstensen Floren, PharmD, MA, DABCP

## UCSF-NYU Langone Health Advanced Education in General Dentistry Residency program (AEGD)

Visit program website. (https://dentistry.ucsf.edu/programs/post-grad/aegd/)

**Summary Description** 

A joint program offering wide-range training in underserved communities. A unique program in concept and design, the Advanced Education in General Dentistry (AEGD) program places residents in community health center sites at the UCSF School of Dentistry campus or in Eureka, Pittsburg or East Palo Alto for comprehensive general dentistry training. Resident learners will gain practice experience in a large, group practice environment providing oral health care to patients of diverse age, race, and religious, ethnic and economic backgrounds while working alongside a team of general and specialist dentists, hygienists and assistants, physicians and other health care professionals. Resident learners will also have the opportunity to participate in activities related to public and community health, and advanced clinical experiences developed by the health center training sites.

The AEGD program is fully accredited by the American Dental Association. Upon successful completion of the program, resident learners can qualify for dental licensure using the postgraduate program pathway in those states that provide for this licensure option. Residents will also will be well-prepared for private practice, community or public health, specialty training or academic dentistry.

While the sites vary in size and patient demographics, they all offer the equipment, materials, resources and staff supports necessary to provide you with excellent advanced dentistry clinical training.

Residents will be assigned to one health center site for the entire year of training to provide a seamless clinical experience and to promote continuity of care for patients. Occasionally, clinical experience enhancements will be offered by rotation to other affiliated health center sites within a region. Traditionally, this program does not have on-call or extra-clinical and/or medical rotation requirements, but these experiences may be developed for resident learners at the discretion of the health center training site.

## **Additional Information**

Contact for questions and additional info:

Ram Vaderhobli, Director (ram.vaderhobli@ucsf.edu)

# UNIVERSITY SUPPORT OFFICES

UCSF provides students, staff, and faculty with a wide range of services. If an office or service you are seeking is not found in the list below, please refer to the listings at A-Z Websites (https://websites.ucsf.edu/azlist/).

- Basic Needs for Students (p. 174)
- Campus Life Services (p. 174)
- · First Generation Support Services (p. 175)
- · Graduate and Professional Student Association (p. 176)
- · Guardian Scholars Program (p. 176)
- · Housing Services (p. 177)
- · Initiative to Maximize Student Development (p. 177)
- · International Students and Scholars Office (p. 178)
- · Learning Resource Services (p. 178)
- Library (p. 179)
- · Office for Postdoctoral Scholars (p. 180)
- · Office of Career and Professional Development (p. 180)
- Office of Diversity and Outreach (p. 181)
- Office of Institutional Research (p. 181)
- · Office of the Registrar (p. 182)
- · Registered Campus Organizations (p. 182)
- Restorative Justice Practices (p. 183)
- · Safety Services (p. 183)
- · Student Disability Services (p. 184)
- · Student Financial Services (p. 185)
- Student Health and Counseling Services (p. 185)
- · Student Life (p. 186)
- · Student Rights and Responsibilities (p. 186)
- Student Veteran and Military Support Services (p. 187)
- Summer Research Training Program (p. 187)
- · Synapse: UCSF Student Voices (p. 188)

## **Basic Needs for Students**

Visit program website. (https://basicneeds.ucsf.edu/)

## **Summary Description**

UCSF Basic Needs for Students supports students with the essential resources to thrive here at UCSF. These resources include:

- · Finance and budget
- · Accessibility
- · Health and wellness
- Food
- Housing
- Transportation
- · Dependent care

Through a robust model of prevention, intervention, and emergency relief, Basic Needs connects students to critical on- and off-campus resources and provides educational opportunities for students to take personal responsibility for their wellness.

Basic Needs has a direct influence on the mental-emotional-physical health, wellness, academic performance, professional development, and holistic success of our students, which directly influences quality of life, sense of belonging, persistence, graduation rates, and overall experience.

### **Additional Information**

Contact for questions and additional info: basicneeds@ucsf.edu

## **Campus Life Services**

Visit program website. (https://campuslifeservices.ucsf.edu/cls/)

## **Summary Description**

The UCSF Campus Life Services organization is focused on "making life better here" for all who work, learn, teach, discover, and visit UCSF. Wherever you are at UCSF, you experience Campus Life Services. If you ride a shuttle, park a car, enjoy a fresh cup of coffee, drop off a child at childcare, use business cards, work in a clean office, classroom, clinic, or lab, run on a treadmill, live on campus, take a walk thru Mt. Sutro, save on Disneyland tickets, or toss recyclables in the right bin, then you know us.

We achieve this through the delivery of professional and innovative business services and convenient personal programs or services that help individuals thrive and optimize their time while at UCSF; and, because we are also part of the UCSF community, we are uniquely positioned to evolve and customize programs and service delivery as the needs of our community changes over time.

#### **Additional Information**

#### **Our Services:**

#### **CLS Technology Solutions**

Our expertise in technology enables UCSF departments and organizations to open online stores, communicate to their audiences via a robust digital signage network, explore UCSF at their fingertips through the official UCSF mobile app, and so much more. UCSF Enterprise Ecommerce, ecommerce@ucsf.edu; Digital Signage, digital.signage@ucsf.edu; All other inquiries: clstech@ucsf.edu.

#### **Conference and Event Services**

We provide on-campus venues with various catering options, and audio/ visual meeting support for events big and small, to enable collaboration and community to thrive. Aldea Center on Mt. Sutro; Millberry Union Event and Meeting Center; Mission Bay Conference Center at UCSF and Wayne and Gladys Valley Center for Vision Conference Center (https://campuslifeserviceshome.ucsf.edu/conference/mission-bay-venues/). Contact: Conference.Services@ucsf.edu

#### **Documents and Media**

We provide communication expertise from traditional direct mail, digital and offset print and production, to innovative digital and data design including web, data dashboards, app development, HTML email design, digital photography services, project management, and more. Departments can also be more eco-friendly through our Print Management Program (PMP). Contact: DMcsr@ucsf.edu.

#### **Facilities Services**

From custodial service to waste reduction, building engineering and maintenance, water and energy conservation, and so much more, look to us to keep the UCSF physical environment comfortable and operational. Contact: facilities@ucsf.edu.

#### **Family Services**

We provide on-site childcare, childcare resources and referrals, back up care, elder care resources, and lactation programs for UCSF families. Contact:

- Administration, 415.502.6312
- Child Care Referral Service, 415.476.2692
- Lactation Accommodation Program, 415.502.3154

- · Kirkham Child Development Center, 415.664.1217
- Marilyn Reed Lucia Child Care Study Center, 415.504.7023
- Laurel Heights Child Development Center, 415.490.5204
- · University Child Care Center at Mission Bay, 415.552.5576

#### **Fitness and Recreation**

We believe in lifelong health and wellness regardless of age or ability, at two state-of-the-art fitness centers. Programming also includes group fitness, personal training, recreational sports league, and outdoor programs in and around the Bay Area.

- Millberry Fitness and Recreation Center at UCSF Parnassus, 415.476.1115
- Bakar Fitness and Recreation Center at UCSF Mission Bay, 415.514.4545

#### **Housing Services**

We provide private and shared housing for UCSF learners, trainees, fellows, faculty, and staff near UCSF shuttle stops and often within walking distance to our major campuses. Contact: housing@ucsf.edu; 415.514.4550.

#### **Retail Services**

From all day dining, snacks, to personal banking, and on-campus shopping, we make it convenient to grab a meal on the go, dine-in, do your personal banking at ATMs, and catering for events and meetings. Contact: 415.514.4743.

#### **Sustainability Services**

We advocate for greener living for everyone at UCSF and lead the charge to reach the UC wide goal of achieving carbon neutrality by 2025. Look to us for green lab or office certifications, green resources, advocacy, and policy. Contact: Gail Lee, REHS, MS, HEM 415.502.6315, gail.lee@ucsf.edu.

#### **Transportation**

We help you get to where you're going with a city-wide shuttle system, parking garages, alternative transportation programs including bike parking, pre-tax commuter savings, vanpool, carpool, and more. Contact: 415.476.GOGO (4646); Transportation@UCSF.edu.

## **First Generation Support Services**

Visit program website. (https://firstgen.ucsf.edu/)

## **Summary Description**

First Generation Support Services (FGSS) serves the students whose parents/caregivers did not graduate from a four-year college. Our mission is to educate and support a diverse student body. We aim to foster a campus environment in which the academic promise of our first gen students and the collective vision for equal educational opportunity regardless of socioeconomic class can be fully realized. First Generation Support Services offers mentoring programs, workshops, socials and other community-building events, as well as individual appointments.

### **Additional Information**

Contact for questions and additional info: firstgen@ucsf.edu

## **Graduate and Professional Student Association**

Visit program website. (https://gpsa.ucsf.edu/)

## **Summary Description**

The mission of the Graduate and Professional Student Association (GPSA) is to serve the collective interests of graduate and professional students at UCSF in order to improve student life on a university and system wide level through dialogue, action, and activities between students, faculty, and staff. The GPSA shall serve as an open forum to discuss graduate and professional student concerns and University policy, to inform its constituents, to advocate for student interests, to foster relationships between all academic programs, to strengthen connections to better support students, to initiate actions and proposals, and to serve as the voice of students. The GPSA shall also provide services and activities to enhance the quality of student life, educational experiences, and academic benefits for its graduate and professional student members.

### **Additional Information**

Contact for questions and additional info: qpsa@ucsf.edu

## **Guardian Scholars Program**

Visit program website. (https://studentlife.ucsf.edu/guardianscholars/)

## **Summary Description**

The Guardian Scholars Program (GSP) supports UCSF students who have had prior involvement in foster care. GSP provides individual case management, community events, and variety of resources that support the holistic success of graduate and professional students who identify as former foster youth.

## **Program Services**

- · Community building
- · Priority on-campus housing
- · Monthly student pantry
- Financial assistance: technology, emergencies, professional development
- · Individual case management

### **Additional information**

Contact for questions and additional info: guardianscholars@ucsf.edu

## **Housing Services**

Visit program website. (https://housing.ucsf.edu)

## **Summary Description**

UCSF Housing Services is excited to be a part of your professional journey with services designed to help you feel at home. **Living on campus** is often the best option for students, especially when moving to the Bay Area.

In addition to the convenience of living on campus, UCSF Housing offers below-market rates, no long-term rental contracts, and proximity to free UCSF shuttles. The application process is easy and doesn't require:

- · application fee
- · credit check
- deposits
- · reference checks

Apply as soon as possible. Space in campus housing is limited. Check out Academe 198 (https://academe198sf.com/), the newest housing community.

Want to live off-campus? Explore these additional resources:

- Off-Campus Housing (https://campuslifeserviceshome.ucsf.edu/ housing/campus-housing/)
- Short-Term Lodging Guide (https:// campuslifeserviceshome.ucsf.edu/housing/short-term-lodgingguide/)
- Summer Visitor Housing (https://campuslifeserviceshome.ucsf.edu/ housing/summer-visitor-housing-resources/)

### **Additional Information**

Contact for questions and additional info: housing@ucsf.edu

## **Initiative to Maximize Student Development**

Visit program website. (https://graduate.ucsf.edu/IMSD/)

## **Summary Description**

The Initiative to Maximize Student Development (IMSD) Fellows and Affiliates Program at UCSF is designed to support historically underrepresented and marginalized students across the basic science PhD graduate programs. This program offers an enriching community for PhD students by providing:

- Career and professional development enrichment and mentorship activities that complement academic research training
- · Peer-to-peer learning
- An environment to showcase, celebrate, and value individual personalities, identities, and experiences

This program is funded by the National Institutes of General Medical Sciences (NIGMS; grant #R25GM056847).

#### **Additional Information**

Contacts for questions and additional info:

- D'Anne Duncan, PhD, Assistant Dean for Diversity and Learner Success and IMSD Co-PI (danne.duncan@ucsf.edu)
- Yvonne Garcia, MS, Diversity and Outreach Program Manager (yvonne.garcia@ucsf.edu)
- Jessica Ip, MA, Diversity Programs and Events Coordinator (jessica.ip@ucsf.edu)

## **International Students and Scholars Office**

Visit program website. (https://isso.ucsf.edu/)

## **Summary Description**

At the UCSF International Students and Scholars Office (ISSO), we advise scholars and students from around the globe in visa matters related to their programs of study, research, or work at UCSF. The ISSO also provides advising on study abroad for UCSF students, including information on graduate funding for opportunities abroad and Fulbright Student Scholarships. We also provide social programming and cultural orientation, and we partner with other campus units to ensure the personal and professional success of our international students.

## **Additional Information**

Contact for questions and additional info: kevin.long@ucsf.edu

## **Learning Resource Services**

Visit program website. (https://learn.ucsf.edu/)

## **Summary Description**

Learning Resource Services (LRS) is a fundamental support the University has put into place for all UCSF students. The service is designed to promote academic and clinical excellence by assisting all students in developing strategies related to current research on how the brain learns. The service is made available to students in individual student appointments (https://learn.ucsf.edu/individual-consultations/), School-specific and Program-specific workshop classes, and small group appointments with students who study together informally. Any UCSF student can utilize the services of LRS at any point in their UCSF education—classroom or clinicals—wherever they have to demonstrate competency.

### **Additional Information**

Contacts for questions and additional info:

- Peggy Ryan: peggy.ryan@ucsf.edu
- · Susan Whitlow: susan.whitlow@ucsf.edu

## Library

Visit program website. (https://www.library.ucsf.edu/)

## **Summary Description About the Library**

The UCSF Library is one of the preeminent health sciences libraries in the world, containing an expansive collection of the world's health sciences knowledge base. At its core, the Library facilitates connection to information and people by delivering a diverse range of human-centered services to the UCSF community and public visitors. Through its digital and physical spaces, the Library cultivates experiences that nurture progressive learning, meaningful engagement, and open creativity. As a vital campus resource, we are dedicated to supporting the UCSF mission of advancing health worldwide.

#### **Our Commitment to Diversity**

We commit to building a diverse and inclusive Library (https://www.library.ucsf.edu/about/diversity-and-inclusion/) as a means of promoting health equity and counteracting historic and current systems of oppression. This commitment also applies to materials related to archives and special collections (https://escholarship.org/uc/item/4mq1461d/).

#### **Our Mission**

The UCSF Library connects people to stimulate inclusive learning, advance scientific inquiry, and enable open access to historical and current health sciences information resources.

#### **Our Services**

- Searching and Managing the Literature: Get expert guidance on discovering resources and services that help you find and manage the information you need. We offer consultations and workshops to assist with your education, research, and clinical care needs.
- Data Science and Open Scholarship: Faculty, staff, and trainees in the UCSF community can get supportand guidance with computational and data skills, maximizing the reach and impact of your work, and understanding your rights to use and share your work on scholarly communication platforms. We offer consultations and workshops.
- The Makers Lab at UCSF. Explore and learn through interdisciplinary collaboration and hands-on discovery, from 3D printing to textile crafting and more.
- Archives and Special Collections: Get access to rare and unique materials to support research and teaching in the history of the health sciences, UCSF history, and health humanities. We offer inperson and remote reference, reproductions, and research services.
- Instructional Design: Faculty and staff can collaborate with an instructional designer to deliver dynamic and engaging learning experiences. Whether developing a new course or seeking enhancements to an existing one, we are available to help you make the best use of the#CLE#andeducation technology tools.
- Multimedia Hardware and Software: Faculty, staff, and students in the UCSF community can get guidance and access to equipment, software, and spaces for DIY multimedia content production.
- Industry Documents Library: Use this rich and growing collection to aid investigation about cross-industry corporate practices that are detrimental to public health. The Industry Documents Library includes millions of documents created by the tobacco, drug, chemical, food, and fossil fuels industries.

- Library Innovative Technology: Students, faculty, and staff can engage with technology and explore new teaching and learning opportunities throughout the library's tech-enhanced spaces.
- Library Events and Classes: Sign up for free workshops and special events on a range of topics led by UCSF Library staff and invited presenters.
- Digital and Print Collections: Get access to a wide range of health sciences books, journals, databases, and multimedia to support all research and learning efforts at UCSF. Our partnership with the California Digital Library expands our access to include crossdisciplinary resources.
- Study and Collaborative Spaces: Use our individual and group study rooms, enclosed faculty carrels, and other spaces for study and collaboration.
- Social and Event Spaces: Relax in our living room area complete with a café. Enjoy events in our multipurpose spaces, such as the Lange Room with breathtaking views of the bay and surrounding areas.
   Visit our library locations at Parnassus Heights, Mission Bay, or the Zuckerberg San Francisco General Hospital campus.

## **Office for Postdoctoral Scholars**

Visit program website. (https://postdocs.ucsf.edu/)

## **Summary Description**

Part of the Graduate Division, the Office for Postdoctoral Scholars serves as a central resource and information conduit for all postdocs as well as for faculty and staff who work with postdocs at UCSF.

Some of the activities of OPS include:

- Creating and leading the strategic vision for postdoctoral training at LICSE
- Developing new initiatives to build a more inclusive environment (https://postdocs.ucsf.edu/community/) for UCSF postdocs
- Advising (https://postdocs.ucsf.edu/appointments/) individual postdocs and their faculty advisers
- Collaborating with faculty and staff on postdoctoral recruitment, inclusion, retention, workforce development, and training
- Offering career development (https://postdocs.ucsf.edu/career/) opportunities for postdocs
- · Advocating for postdoc community integration at UCSF
- · Streamlining institutional processes for postdocs
- Directing the Basic Science Responsible Conduct of Research course (https://rcr.ucsf.edu/basic-science-rcr/) for Postdoctoral Scholars
- Reviewing/granting requests for exceptions to standard policy (e.g., length of appointment, part-time appointments, outside professional activity)
- Liaising and advocating with various regional, national, and international organizations on behalf of UCSF postdocs
- · Maintaining the UCSF postdoc website (https://postdocs.ucsf.edu)

(https://postdocs.ucsf.edu)Read about the history of postdoctoral training (https://postdocs.ucsf.edu/history/) at UCSF.

## **Appointment Inquiries**

- Obtaining a postdoc appointment at UCSF (https://postdocs.ucsf.edu/step-one/)
- UCSF Postdoctoral Scholar Qualifications (https://hr.ucsf.edu/ careers/employment-ucsf/postdoctoral-scholar-appointment/)
- Take these steps before you begin (https://postdocs.ucsf.edu/steptwo/)

## **Additional Information**

Dr. Chequeta D. Allen (https://postdocs.ucsf.edu/chequeta-d-allen-bio/)
Assistant Dean for Postdoctoral Scholars

## Office of Career and Professional Development

Visit program website. (https://career.ucsf.edu/)

## **Summary Description**

The vision of the Office of Career and Professional Development (OCPD) is for every student and postdoctoral scholar to leave UCSF with the information, skills and confidence required for career success. To that end, our mission is to collaborate with the UCSF community to teach students and postdoctoral scholars the essential knowledge and professional skills to navigate their careers. The OCPD offers tailored workshops, courses, 1:1 counseling and online resources around every stage of career development. This includes topics such as self-reflection and professional identity; effective career exploration and decision making; strategic positioning and the competitive pursuit of internship, employment, postdoc, residency and fellowship opportunities; and key professional skills.

#### **Additional Information**

Contact for questions and additional info:

Please contact us via email at ocpd@ucsf.edu, or via phone at 415.476.4986. Students and postdocs can also schedule an appointment at career.ucsf.edu (https://career.ucsf.edu/).

#### Office of Diversity and Outreach

Visit program website. (https://diversity.ucsf.edu/)

#### **Summary Description**

The Office of Diversity and Outreach (ODO) serves as the campus leader in building diversity, equity, inclusion and belonging in all aspects of the UCSF mission through consensus building, ongoing assessment, development of new programs, and systems changes. We are responsible for and collaborate with the four professional schools, the Graduate Division and the medical center to promote diversity, equity, inclusion and anti-racism across UCSF.

The Vice Chancellor's Office of Diversity and Outreach (VCDO) includes oversight for the Center for Science Education and Outreach, Disability Access and Inclusion, LGBT, Multicultural and CARE Resource Centers, the Office for the Prevention of Harassment and Discrimination, Sexual Violence Prevention and Response, and the direct office of the Vice Chancellor of Diversity and Outreach.

The mission of ODO is to build a broadly diverse faculty, student, trainee and staff community, to nurture a culture that is welcoming and supportive, and to engage diverse ideas for the provision of culturally competent education, discovery and patient care. Our priority is to execute a comprehensive strategic plan for diversity, outreach and antiracism that supports UCSF's mission of advancing health worldwide and the recruitment and retention of talented employees and students who contribute to our commitment to diversity and excellence.

Learn more about the Office of Diversity and Outreach (https://diversity.ucsf.edu/).

#### **Additional Information**

Contact for questions and additional info: diversityoutreach@ucsf.edu

#### Office of Institutional Research

Visit program website. (https://oir.ucsf.edu/)

#### **Summary Description**

The Office of Institutional Research (OIR) is responsible for campus-wide institutional research activities and initiatives. Through the collection, integration, and analysis of data from extensive internal and external sources, OIR informs institutional decision-making, management, and planning.

#### **Key Responsibilities**

- Collecting and distributing data about UCSF and the campus population
- Reporting to federal and state government agencies and accrediting bodies
- · Creating, analyzing, and interpreting surveys
- · Assisting with program reviews and teaching/learning assessment
- Providing information related to grant proposals and research designs

#### Office of the Registrar

Visit program website. (https://registrar.ucsf.edu/)

#### **Summary Description**

The Office of the Registrar provides students, graduates, staff, and faculty with a full range of services, including:

- Welcome information for new students (https://registrar.ucsf.edu/ new-students-landing/)
- Registration requirements and deadlines (https://registrar.ucsf.edu/ registration/how-register/)
- Fees (by program) (https://registrar.ucsf.edu/registration/fees/)
- Fee payment deadlines (https://registrar.ucsf.edu/registration/deadlineshome/)
- Transcript fulfillment (https://registrar.ucsf.edu/transcripts/orderingtranscripts/)
- Diploma services (https://registrar.ucsf.edu/students/diplomas/ diploma-overview/)
- Degree and enrollment verifications (https://registrar.ucsf.edu/ verifications/alumni/)
- · Academic schedules (https://registrar.ucsf.edu/academic-calendar/)
- California residency information (https://registrar.ucsf.edu/ registration/residency/)
- Faculty Portal (https://registrar.ucsf.edu/faculty/faculty-portal/) and Course Catalog support (https://registrar.ucsf.edu/faculty/catalog/)
- Transcript guide and grading key (https://registrar.ucsf.edu/ transcripts/transcript-guide-and-grading-key/)
- Links to a wide range of other student service offices (https://registrar.ucsf.edu/new-students/useful-links/)

#### **Registrar Staff**

- · Doug Carlson, Registrar
- · Omar Saucedo, Associate Registrar
- · J. Christian Sweatt, Associate Registrar
- · Juan Bernal, Registration Advisor
- · Angela Lozanov, Registration Advisor

#### **Additional Information**

Policy for evaluation of credit for previous education and training: UCSF will maintain a written record of the previous education and training of veterans and eligible persons. The student's record will clearly indicate that credit has been granted with the VA and student notified accordingly. Not Applicable for UCSF programs.

Contact for questions and additional info: registrar@ucsf.edu

#### **Registered Campus Organizations**

Visit program website. (https://studentlife.ucsf.edu/involvement/)

#### **Summary Description**

Registered Campus Organizations (RCOs) are a very important part of campus life. There are more than 150 RCOs at UCSF, covering a broad range of interests including educational, social, cultural, artistic, recreational, political, and spiritual focuses. These organizations combine to sponsor over 2,000 diverse and exciting activities each year. Consider joining or forming an RCO as a great investment of your out-of-classroom time. Through the years, thousands of UCSF students have made lifetime friends and have created a deeper sense of community in just this way.

#### **Additional Information**

Contact for questions and additional info: studentlife@ucsf.edu

#### **Restorative Justice Practices**

Visit program website. (https://studentlife.ucsf.edu/RJP/)

#### **Summary Description**

The Office of Restorative Justice Practices offers a wide application of restorative justice practices (RJP), which includes two approaches:

- A proactive approach to building community and strengthening relationships.
- A responsive approach that focuses on addressing the harm, identifying individual and community needs, and restoring the community.

Incorporating restorative justice practices into our community helps UCSF create spaces for people to be brave and vulnerable in an open dialogue that facilitates community-building and healing in the community.

#### **Additional Information**

Contact for questions and additional info:

Maria S. Jaochico (rjp@ucsf.edu)

#### **Safety Services**

Visit program website. (https://police.ucsf.edu/)

#### **UCSF Emergency Numbers**

UCSF Police Department - Emergency: 911 (from on-campus landline); (415) 476-6911 (from cell phone)

UCSF Police Department - Non-Emergency: (415) 476-1414

Medical Center Security Services: (415) 885-7890

Benioff Children's Hospital Oakland Security: (510) 428-3600

UCSF Fresno Security: (559) 499-6478

UCSF Confidential CARE Advocate: (415) 502-8802

Student Health and Counseling Services: (415) 476-1281

UCSF Campus Emergency Hotline: (415) 502-4000

#### **UCSF Police Department**

The University of California, San Francisco Police Department (UCSF PD) serves the University community by helping to protect it against crime.

UCSF PD endeavors to be known for its community service orientation, effectiveness at preventing crime through campus community involvement, and for providing a safe living and working environment to promote education, research, and public service. The Department has three customer service locations: Parnassus Heights campus – WeID office at Millberry Union, 654 Minnesota Street, and Mission Center Building.

The UCSF Police Department strives to provide a crime-free and safe environment through strategic policing, integrity, respect, and strong community partnerships.

UCSF PD's mission is to enhance the safety and quality of life at UCSF by working in partnership with the community to promote public safety and crime prevention through education and enforcement; to maintain public order while preserving the legal rights of all individuals; to provide effective, efficient, and courteous service; and to reduce the impact of crime. This mission is accomplished through effective:

- · Crime prevention and suppression
- Victim support and assistance
- Infrastructure protection
- · Traffic safety

For more information about UCSF PD, please visit police.ucsf.edu (https://police.ucsf.edu/).

#### **Incident Reporting**

If you are the victim or witness to a crime, you have the responsibility to report it immediately to the police. UCSF community members are encouraged to accurately and promptly report all crimes or suspicious activity to the UCSF Police Department when the victim of a crime elects or is unable to make such a report. Students and employees who report crimes to UCSF PD may aid in averting crimes and in the apprehension of suspects, as well as in allowing UCSF PD to initiate a Timely Warning (Crime Alert) notice and to include the information in the annual statistics

disclosure. Most importantly, prompt reporting will assist the Police Department in maintaining a safe and secure campus environment for all.

Confidential Reporting: All incidents reported to UCSF PD are considered confidential except for information required by law to be released. For cases involving sexual assault and with the complainant's permission, UCSF PD can file a report on the details of the incident without revealing their identity. The purpose of a confidential report is to comply with the complainant's wish to keep the matter confidential while taking steps to ensure the future safety of the complainant and others.

With such information, UCSF PD can keep an accurate record of the number of incidents involving students and staff, determine where there is a pattern of crime with regard to a particular location, method, or assailant, and alert the University community to potential danger. Reports filed in this manner are counted and disclosed in the annual crime statistics for the institution as part of UCSF's Clery Act obligations.

#### **Clery Act**

#### **Annual Security Report and Annual Fire Safety Report**

Please see the links below to the UCSF Annual Security Report and UCSF Annual Fire Safety Report, produced in compliance with the Jeanne Clery Act. The security report includes statistics for the previous three calendar years concerning reported crimes that occurred on campus, in certain off-campus buildings owned or controlled by UCSF, and on public property within or immediately adjacent to and accessible from the campus. This report also includes institutional policies concerning campus security, alcohol and drug use, crime prevention, the reporting of crimes, timely warning of crimes, sexual and interpersonal violence, and personal safety at UCSF. The fire report includes UCSF's fire reporting statistics and policies.

These publications were produced in compliance with the Jeanne Clery Act, which requires colleges and universities receiving federal financial aid funding to disclose reported instances of criminal activity on their campuses. This legislation also states that a copy of these publications must be made available to all current and prospective students and employees.

View the UCSF Annual Security Report (https://ucsf.box.com/v/UCPD-UCSF-ASR-2023-24/)

View the UCSF Annual Fire Safety Report (https://ucsf.box.com/v/UCPD-UCSF-AFSR-2023-24/)

Visit the UCSF Police Department Clery website (https://police.ucsf.edu/clery-act-and-ucsf-annual-fire-safety-security-reports/)

Visit the UCSF EH&S Fire Prevention website (https://ehs.ucsf.edu/fire-prevention/)

For comments or hard copies of these publications, please contact:

#### Jason Heil

Clery Act Coordinator and Crime Analyst UCSF Police Department 654 Minnesota Street, Suite 180 San Francisco, CA 94143-0238 Tel: (415) 502-9396 Email: jason.heil@ucsf.edu

#### **Student Disability Services**

Visit program website. (https://sds.ucsf.edu)

#### **Summary Description**

UCSF has a proud history of welcoming students with all types of disabilities into the professional schools and the Graduate Division. We pride ourselves in giving individualized consideration of each student's abilities, the functional impact of their disability, and program standards in order to devise creative and innovative accommodation solutions to ensure equitable access to students with disabilities.

Being a graduate and professional school institution, there are some unique aspects of the educational experience at UCSF that may be different from your undergraduate experience. These aspects are worth discussing with Student Disability Services (SDS) as you consider what accommodations you might need, and what transition plan you may want to put in place to prepare for academic and clinical experiences at UCSF.

#### SDS Mission

Student Disability Services (SDS) serves, supports, and empowers UCSF students with disabilities by ensuring equitable access to fully and holistically participate in all areas of the university experience.

#### **Additional Information**

Contacts for questions and additional info:

Timothy Montgomery, Co-Director (timothy.montgomery@ucsf.edu)

Clayton Littrell, Co-Director (clayton.littrell@ucsf.edu)

#### **Student Financial Services**

Visit program website. (https://finaid.ucsf.edu/)

#### **Summary Description**

Student Financial Services (SFS) is dedicated to helping find the resources needed to support educational costs while attending UCSF. There are a variety of documents needed to be considered for financial aid. Please review the application process (https://finaid.ucsf.edu/application-process/apply-for-aid/). The SFS website should have everything you need to learn about the types of financial aid available to students at UCSF, including how to contact the office (https://finaid.ucsf.edu/about-us/contact/).

Satisfactory Academic Progress: Students receiving financial aid are required to make satisfactory progress toward their degree objectives. The specific definition of satisfactory progress varies from one curriculum to another, and a copy of the applicable policy by program can be found here (https://finaid.ucsf.edu/application-process/eligibility/).

View general eligibility criteria and policies for individual programs (https://finaid.ucsf.edu/application-process/eligibility/).

#### **Additional Information**

Contact for questions and additional info: finaid@ucsf.edu

# Student Health and Counseling Services

Visit program website. (https://studenthealth.ucsf.edu/)

#### **Summary Description**

The mission of Student Health and Counseling Services (SHCS) is to optimize the physical and mental health of students to help them achieve academic success, personal development, and lifelong wellness.

SHCS physicians and nurse practitioners offer preventive healthcare services, routine screenings, health maintenance counseling, patient education, diagnosis and treatment of acute and chronic illnesses, travel consultations as well as coordination of specialty care. Primary care services include but are not limited to: medical assessments and physical examinations; women's health; transgender care; sports medicine; office procedures; and lab work and diagnostic testing.

SHCS cares about students' well-being and is here to support them on their journey at UCSF. Counseling and Psychological Services provides a safe and confidential place to discuss concerns related to one's personal life, academic experience, and professional development. Our psychiatrists and psychologists are experienced in addressing the needs of students from diverse and/or marginalized backgrounds. Students utilize Counseling and Psychological Services for a variety of concerns which include, but are not limited to: managing stress; professional identity development; depression or anxiety; grief and loss; relationships with peers, faculty, roommates, family or romantic partners; drugs and alcohol; eating concerns; and issues related to cultural, gender and sexual identities

The SHCS nursing team provides consultations to answer commonly asked questions about sore throats, UTIs, birth control, flu, yeast infections, and STD exposures. The nurses administer vaccinations and dispense advice about immunizations and TB screenings. They can also assess symptoms for acute injuries and illnesses and make an appropriate plan of care.

An experienced administrative team is available to support your health care coordination and answer questions related to services and health insurance benefits.

SHCS also offers Health Education and Promotion programs which seek to achieve wellness through student-centered education and creating health-promoting environments.

#### **Additional Information**

Contact for questions and additional info: shs@ucsf.edu

#### **Student Life**

Visit program website. (https://studentlife.ucsf.edu/)

#### **Summary Description**

Student Life is a campus-wide student service providing inclusive and innovative programs and resources to holistically support UCSF students. We are invested in reciprocal partnerships to enhance the student experience and their success through four pillars: community, advocacy, access and inclusion, and data informed decision making.

#### **Additional Information**

Contact for questions and additional info: studentlife@ucsf.edu

#### **Student Rights and Responsibilities**

Visit program website. (https://studentlife.ucsf.edu/policies/)

#### **Summary Description**

The mission of the UCSF is advancing health worldwide. As future health care professionals and health science researchers, UCSF students are held to high standards of behavior, particularly in matters of ethics, judgment, and professionalism. As such, student conduct is considered a part of a student's academic performance.

UCSF's Principles of Community (https://diversity.ucsf.edu/about/principles-of-community/) and PRIDE Values (https://www.ucsf.edu/about/mission-and-values/) illustrate the expectations for all members of our community as we work together to fulfill UCSF's mission. Students are expected to act consistently with the values of the University community and to follow University policies and implementing regulations.

The UCSF Policy on Student Conduct and Discipline (https://studentlife.ucsf.edu/student-conduct-and-discipline/) describes the procedures for addressing alleged violations of non-academic/non-professionalism misconduct. The policy establishes standards for student behavior, clarifies the university's response to alleged violations, and safeguards students' rights throughout the process. It is expected that all students understand and comply with this policy throughout their tenure at UCSF.

The office responsible for administering this policy is Student Rights and Responsibilities. To report alleged violations of the UCSF Policy on Student Conduct and Discipline, individuals can email studentconduct@ucsf.edu, providing the details of the alleged violation.

#### **Useful Links:**

Student Life: Policies (https://studentlife.ucsf.edu/policies/)
UCSF Policy on Student Conduct and Discipline (https://
studentlife.ucsf.edu/student-conduct-and-discipline/)
UC Policies Applying to Campus Activities, Organizations, and Students (PACAOS) (https://policy.ucop.edu/doc/2710530/PACAOS-100/)

#### **Additional Information**

Contact for questions and additional info:

Becca Wallace, Director of Student Rights and Responsibilities (becca.wallace@ucsf.edu)

# Student Veteran and Military Support Services

Visit program website. (https://veterans.ucsf.edu/)

#### **Summary Description**

UCSF Student Veteran and Military Support Services fosters a welcoming environment for veterans, active duty, and military connected students. It is our goal to help military-affiliated students navigate UCSF and provide them with mentoring, guidance on educational benefits, and tools to succeed academically and personally. We value the experiences veterans bring to the UCSF community and are committed to helping them achieve their goals and aspirations.

#### **Additional Information**

Contact for questions and additional info: veterans@ucsf.edu

#### **Summer Research Training Program**

Visit program website. (https://graduate.ucsf.edu/srtp/)

#### **Summary Description**

UCSF's Summer Research Training Program (SRTP) provides undergraduate students with the opportunity to conduct research in the basic biomedical sciences: Biochemistry and Molecular Biology, Bioengineering, Biological and Medical Informatics, Biomedical Sciences, Biophysics, Cell Biology, Chemistry and Chemical Biology, Developmental and Stem Cell Biology, Genetics, Neuroscience, Oral and Craniofacial Sciences, and Pharmaceutical Sciences and Pharmacogenetics. The goal of this ten-week summer experience is to prepare historically underrepresented and marginalized students for graduate study and a research career in the health sciences. Students complete an original project under the guidance of a faculty mentor whose work is closely aligned with the student's research interests and experience. At the end of the program, undergraduate students present their findings in written abstracts and give oral and poster presentations at a research symposium attended by faculty, postdocs, and graduate students.

The overarching objectives of the UCSF SRTP are:

- a. To provide access to this opportunity for students from a diverse range of backgrounds. This objective is achieved through targeted recruitment and admissions processes that are focused on students who may be first generation to college, from underrepresented in science groups, or attending non-research-intensive institutions that lack facilities and funding for undergraduate research experiences.
- b. To increase the number of students who enroll in and successfully complete graduate degrees in science and pursue careers in the U.S. biomedical workforce. This objective is achieved by providing talented undergraduates with a mentored, sophisticated, and transformative experience of engaging in world-class, health-focused, basic science research at UCSF. The intensive research placement is paired with a rigorous co-curriculum and activities that prepare students for a successful transition into a top-tier PhD degree program and eventual scientific career.

#### **Additional Information**

Contacts for questions and additional info:

- D'Anne Duncan, PhD, Assistant Dean for Diversity and Learner Success
- Yvonne Garcia, MS, Diversity and Outreach Program Manager
- · Jessica Ip, MA, Diversity Programs and Events Coordinator

Email: gd\_diversity@ucsf.edu

#### **Synapse: UCSF Student Voices**

Visit program website. (https://synapse.ucsf.edu)

#### **Summary Description**

Synapse is the student-run campus newspaper. Published weekly during the academic year, Synapse serves as a forum for the campus community and plays a vital role of strengthening the fabric of a widely-dispersed campus community by providing news about UCSF, and in particular, student life, that cannot be found anywhere else.

Synapse audiences benefit from a high-quality publication that reinforces a sense of community and school spirit. Students who work at the newspaper also benefit — by learning a variety of skills that will assist them later in their health science careers, including organizing their thoughts to tell a good story, writing in a clear and concise manner, and executing on deadline.

All UCSF students and affiliates are welcome to submit an article to our publication. Once a piece is reviewed, it is scheduled for future publication on our website and in the weekly newsletter, which is electronically distributed each Tuesday during the academic year.

#### **Additional Information**

Contact for questions and additional info: synapse@ucsf.edu

# ACADEMIC AND ADMINISTRATIVE CALENDAR

UCSF follows the quarterly calendar of the University of California. Dates for holiday observances are universal, but dates for the start and end of instruction or quarters may vary for some academic programs. Scroll to the bottom of the calendar page for archived calendars.

View the academic and administrative calendar (https://registrar.ucsf.edu/academic-calendar/).

#### **Additional Information**

Contact for questions and additional info: registrar@ucsf.edu

### **ACCREDITATION**

Website: oir.ucsf.edu/accreditation (https://oir.ucsf.edu/accreditation/)

UCSF is accredited by the Western Association of Schools and Colleges (WASC) Senior College and University Commission (together known as WSCUC), one of six regional accrediting associations in the United States. Review full accreditation information (https://oir.ucsf.edu/accreditation/).

Individual schools and programs may have additional accreditations. View program-specific accreditations (https://oir.ucsf.edu/school-and-program-specific-accreditations/).

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#### **Anatomy (ANATOMY)**

# ANATOMY 140.01A Regional Anatomy Dissection- Head and Neck (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Barbie Klein, Madeleine Norris

Prerequisite(s): 4th year student in good academic standing.

Restrictions: Course intended for fourth-year medical students. Late 3rd year students can also take the course.

Activities: Lecture, Lab science

In-depth region-based anatomy dissection and didactic course for fourth year medical students. Students will explore anatomical structures and regions of the head and neck, such as the muscles of facial expression, infratemporal fossa, pterygopalatine fossa, cranial nerves, larynx, and pharynx. In addition to dissection, there will be daily student led didactic sessions, relevant case discussions based on the topic of the day, and quizzes to assess student retention.

School: Medicine
Department: Anatomy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANATOMY 140.01B Regional Anatomy Dissection - Musculoskeletal (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Barbie Klein, Madeleine Norris

Prerequisite(s): 4th year student in good academic standing.

Restrictions: Course intended for fourth-year medical students. Late 3rd year students can also take the course.

Activities: Lecture, Lab science

In-depth region-based anatomy dissection and didactic course for fourth year medical students. Students will explore the anatomy of the musculoskeletal system, such as muscles, joints, innervation, and blood supply of both the upper and lower limb. In addition to dissection, there will be daily student led didactic sessions, relevant case discussions based on the topic of the day, and quizzes to assess student retention.

School: Medicine
Department: Anatomy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### ANATOMY 140.01C Regional Anatomy Dissection-Thorax, Abdomen, and Pelvis (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Barbie Klein, Madeleine Norris

Prerequisite(s): 4th year student in good academic standing.

Restrictions: Course intended for fourth-year medical students. Late 3rd year students can also take the course.

Activities: Lecture, Lab science

In-depth region-based anatomy dissection and didactic course for fourth year medical students. Students will explore anatomical structures and regions of the thorax, abdomen, and pelvis such as the pleural and pericardial cavities, gastrointestinal system, reproductive systems, and perineum. In addition to dissection, there will be daily student led didactic sessions, relevant case discussions based on the topic of the day, and quizzes to assess student retention.

School: Medicine
Department: Anatomy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ANATOMY 170.10 Introduction to 3D Printing for Health Science Students (1 Units) Fall, Winter, Spring

Instructor(s): Madeleine Norris
Prerequisite(s): N/A

Restrictions: Fall: 1st & 2nd Year Physical Therapy DPT Students\r\nWinter: Dental (DDS) Students \r\nSpring: Medical Students

Activities: Lecture, Project

This course will provide an introduction to 3D printing for health science students. This will include didactic knowledge on the types of printers, types of printing materials, and use cases in the health professions. This course will also provide content and application in extracting tissues from a DICOM file, cleaning the file, and exporting the file for 3D printing.

School: Medicine
Department: Anatomy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANATOMY 171.10 Advanced 3D Printing for Health Science Students (0.5-1 Units) Fall, Winter, Spring, Summer

Instructor(s): Madeleine Norris

Prerequisite(s): Learners will need to have completed Anatomy 170.10 or complete the training required by the instructor of record prior to beginning this elective.

Restrictions: N/A

Activities: Independent Study

This elective will apply the skills and knowledge acquired in the Anatomy 170.10 3D Printing for Health Science Students elective. Students will be matched with a UCSF faculty or researcher and will produce a 3D printed project used for patient education, simulation, or research. Students will develop a project plan with the faculty, generate a 3D model from DICOM data, clean the file in 3D design software, 3D print the model, post-process, and assemble.

School: Medicine
Department: Anatomy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### ANATOMY 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Madeleine Norris
Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine
Department: Anatomy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### **ANATOMY 207 Neuroscience (3 Units) Summer**

Instructor(s): Jessica Bath

Prerequisite(s): Basic Human Anatomy and Physiology or consent of instructor.

Restrictions: DPT and PhD in Rehab Science students, or with the approval of the instructor.

Activities: Lecture, Seminar, Project, Lab science, Discussion

Provides knowledge about the anatomy and function of the human central and peripheral nervous systems with a strong emphasis on clinical relevance. General neuroanatomy topics include the gross and microscopic structure, embryology, and neurophysiology of the brain, spinal cord and nerves with descriptions of alterations in normal anatomy through disease and injury. Supplemented with lab demonstrations.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# Anesthesia and Perioperative Care (ANE PERIOP)

# ANE PERIOP 110 Anesthesia Core Clerkship (0.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Kristine Breyer
Prerequisite(s): Third-year standing.

Restrictions: 3rd year medical students.

Activities: Clinical

A comprehensive experience in anesthesia & perioperative care. Clinical skills include airway management, IV insertion, drug administration, physiologic monitoring, sedation and acute pain management. The OR facilitates review of pulmonary/cardiovascular physiology and pharmacology. Developing rapport, confidence, professionalism and communication are emphasized. Reflection helps the student find meaning.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? Yes

# ANE PERIOP 130.01 CIEx - Pain Management Elective (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Xiaobing Yu
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be exposed to a diverse population of patients with complex chronic pain or cancer pain frequently seen in the primary care and inpatient settings, as well as develop fundamental knowledge and skills in the assessment of pain.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 130.15 CIEx - Pediatric Anesthesia (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Justin Libaw

Prerequisite(s): 3rd year student in good academic standing

Restrictions: None
Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will explore the Pediatric Anethesia service and be exposed to the operating room, pediatric pain service and non-OR procedural areas.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 140.01 Advanced Clinical Clerkships (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Dylan Masters
Prerequisite(s): Anesthesia 110.

Restrictions: 4th year medical students.

Activities: Clinical

A 4-week clinical clerkship which offers a perspective into the clinical cases and research opportunities offered by the department. At ZSFGH students will take night call, during their week at Mount Zion students will gain an understanding of the basic principles of ultrasound-guided blocks, At VA hospital students will pair with residents during their cardiovascular rotation, and at Moffitt Long hospital, students will manage ASA 1 and ASA 2 cases.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# ANE PERIOP 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Kristine Breyer Prerequisite(s): Anesthesia 110.

Restrictions: None
Activities: Clinical

Off-campus clinical clerkships in approved hospitals by special arrangement and approval of the Director of Medical Student Education, Department of Anesthesia.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### ANE PERIOP 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Kristine Breyer
Prerequisite(s): ANE PERIOP 110

Restrictions: None

Activities: Clinical

Off-campus clinical clerkships in approved hospitals by special arrangement and approval of the Director of Medical Student Education, Department of Anesthesia.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# ANE PERIOP 140.03A Advanced Intensive Care (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Julin Tang

Prerequisite(s): ANE PERIOP 110\r\nMEDICINE 110\r\nSURGERY 110

Restrictions: None.
Activities: Clinical

Clinical clerkship provides experience with critically ill adult and pediatric patients in a surgical, trauma, and neurologic intensive care unit. Focus is on evaluation, management, and resuscitation of patients with severe respiratory, cardiovascular, and neurologic failure, often in the setting of traumatic insult.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ANE PERIOP 140.03B Advanced Intensive Care (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Rondall Lane

Prerequisite(s): Anesthesia 110, Medicine 110, Surgery 110 or consent of instructor.

Restrictions: None.

Activities: Lecture. Clinical

The student will participate in the care of critically ill adults with a variety of medical and surgical conditions. The clerkship will integrate an understanding of respiratory, cardiovascular, cerebral and renal pathophysiology with diagnostic and therapeutic techniques required to care for patients with multisystem failure.

School: Medicine

Department: Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# ANE PERIOP 140.05A Advanced Anesthesia Clinical Clerkship - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Nikolai Kolotiniuk

Prerequisite(s): Successful completion of third year electives.

Restrictions: none
Activities: Clinical

This course serves as an introduction to the field of anesthesia. Students will become familiar with the components of the pre-operative assessment and medical clearance of the surgical patients. They will learn and practice both basic and advanced airway management skills. Their experience will also include learning about the perioperative pain management strategies that include a variety of oral and intravenous agents, peripheral nerve blocks, and neuraxial blocks.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 140.06 Pain Management (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Xiaobing Yu
Prerequisite(s): None.

Restrictions: 4th Year Medical Students

Activities: Clinical

This course in pain management allows students to participate in the assessment and treatment of patients with chronic pain in an outpatient setting. Morning lectures, journal clubs and multidisciplinary treatment plan meetings comprise the didactic portion, while outpatient pain management evaluations and interventional procedures with faculty, fellows and residents provide the clinical portion.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 140.07 Advanced Anesthesia for 4th Year OMFS Students (16.5-18 Units) Fall, Winter, Spring, Summer

Instructor(s): Hemra Cil
Prerequisite(s): None

Restrictions: Restricted to OMFS

Activities: Seminar, Clinical

This is a 12-week advanced elective in general anesthesia for participants in Oral & Maxillofacial Surgery who are in the medical school phase of their integrated training program. It fulfills partial requirements for accreditation in Oral & Maxillofacial Surgery.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ANE PERIOP 140.08 Obstetric Anesthesia (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Arthur Chyan

Prerequisite(s): ANE PERIOP 110, OB GYN R S 110

Restrictions: 4th Year Medical Students

Activities: Clinical

This course is designed for students interested in either Obstetrics/ Gynecology or Anesthesia as it relates to Women's Health. The clerkship views labor & delivery from the anesthesia perspective, with emphasis on physiology, pharmacology & specific disease processes of pregnancy. The educational & skills objectives are defined by the principles & practice of obstetric anesthesia. The student's goal is to become a more knowledgeable, more skilled & more effective physician in an obstetric unit.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

# ANE PERIOP 140.10 Pediatric Anesthesia (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Justin Libaw

Prerequisite(s): ANE PERIOP 110\r\nPEDIATRICS 110

Restrictions: None.
Activities: Clinical

This course is designed for students interested in Pediatrics or Pediatric Anesthesia. The clerkship incorporates issues of importance to the pediatrician and pediatric anesthesiologist, including preoperative evaluation and preparation, sedation management and monitoring, airway management, implications of common and rare pediatric disorders, management for painful procedures and options for remote locations and effective postoperative pain management.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 140.52 Pediatric Anesthesia for 4th Year OMFS Students (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Zhe Chen

Prerequisite(s): Successful completion of both the Pediatrics &

Anesthesia Core Clerkship (110) rotations.

Restrictions: 4th Year OMFS Students only

Activities: Clinical

The pediatric anesthesia rotation will allow students the opportunity to provide hands-on care to children from birth to age 18 undergoing sedation or general anesthesia for myriad surgeries and procedures.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 140.53 Advanced Cardiac Life Support Training (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Dylan Masters

Prerequisite(s): Before your ACLS course, \r\n1. Visit heart.org/eccstudent \r\n2. Enter manual code: acls15 \r\n3. Click Precourse Self-Assessment (Flash) to begin \r\n4. Learners must print out their score and bring this on the first day

Restrictions: Only 4th year medical students may enroll as part of their preparation for residency.

Activities: Workshop

Advanced cardiac life support, or advanced cardiovascular life support, often referred to by its abbreviation as "ACLS", refers to a set of clinical algorithms for the urgent treatment of cardiac arrest, stroke, myocardial infarction, and other life-threatening cardiovascular emergencies. This course is targeting MS4's who need ACLS certification prior to the start of internship.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### ANE PERIOP 150.01 Research in Anesthesia (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Kristine Breyer

Prerequisite(s): ANE PERIOP 110.\r\nConsent of faculty member in charge of students research project and approval of third- and fourth-year coordinator.

Restrictions: None.

Activities: Fieldwork, Project, Lab science

Students conduct research projects under guidance of faculty member. Projects must be approved by both the research mentor supervising the student and the clerkship director. Students may initiate or become involved in established research programs under faculty guidance.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# ANE PERIOP 170.01A Special Study Course (0.5-1 Units) Fall

Instructor(s): Solmaz Manuel
Prerequisite(s): None.

Restrictions: 1st and 2nd year medical student only.

Activities: Lecture

This course is intended to serve as an introduction to anesthesia as a field and the various subspecialties within anesthesia. There will also be a lecture on residency programs including what to expect from the application process and the day-to-day life of residency. Each week, experts from subspecialties, including cardiac, obstetric, pediatric and pain management, will present using a lecture and demonstration format.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 170.03 Exploring Critical Care Medicine (1 Units) Fall

Instructor(s): Kevin Thornton
Prerequisite(s): None

Restrictions: None

Activities: Lecture

This lunch-time elective will introduce students to the various fields within Critical Care Medicine. It will also discuss the many ways in which students may pursue a career in CCM (ie: varying combinations of residency and fellowships). Guest lecturers will also discuss their clinical & research interests here at UCSF.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ANE PERIOP 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Kristine Breyer Prerequisite(s): None.

Restrictions: None.

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Anesthesia And Perioperative Care

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### **Anthropology (ANTHROPOL)**

# ANTHROPOL 170.01 An Introduction to Medical Anthropology (1 Units) Fall, Winter, Spring

Instructor(s): Vincanne Adams

Prerequisite(s): None

Restrictions: 1st and 2nd Year Medical Students only

Activities: Lecture

This introductory Medical Anthropology course is designed to provide 1st and 2nd year medical students with a broad background in the discipline. In the second quarter of the class, physician-anthropologists and medical anthropologists will present their current research and lead discussions on topics relevant to medical anthropology today. Note: The winter-quarter course is not a prerequisite for this spring elective.

School: Medicine

**Department:** Humanities and Social Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ANTHROPOL 200 Off-Campus Study (0 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Approval of the graduate adviser

Full-time graduate study in the Medical Anthropology program through the intercampus exchange or consortium program.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### ANTHROPOL 205A Intro to Sociocultural Theory (4 Units) Fall

Instructor(s): Vincanne Adams, Ian Whitmarsh, Kelly Knight, Galen Joseph
Prerequisite(s): none

Restrictions: Restricted to doctoral students in Medical Anthropology, and others at graduate standing with consent of instructor.

Activities: Seminar, Independent Study, Discussion

Seminar in the history and development of major theoretical ideas in social and cultural anthropology as applied to problems of health, illness, medicine and medical institutions. Major concepts and problems will be illustrated through critical review of selected literature.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# ANTHROPOL 205B Introduction to Sociocultural Theory (4 Units) Winter

Instructor(s): Ian Whitmarsh

Prerequisite(s): Successful completion of Anthropology 205A.

Restrictions: Restricted to students in medical anthropology, and others at graduate standing with consent of instructor.

Activities: Seminar, Independent Study, Discussion

Continuation of Anthropology 205A, seminar in the history and theory of sociocultural anthropology as applied to oproblems of health, illness, medicine and medical institutions.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### ANTHROPOL 211A Research Training Seminar (4 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Required for and open only to first and second-year students in the intercampus (UCB/UCSF) PhD Program in Medical Anthropology.

Restrictions: First or second year Medical Anthropology students from UCB/UCSF joint program

Activities: Lecture, Seminar, Fieldwork, Discussion

Fundamentals of anthropological research design, methods, and analysis through lectures, readings and field assignments.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# ANTHROPOL 211B Research Training Seminar (8-10 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Required for and open only to second-year students in the UCB/UCSF intercampus PhD Program in Medical Anthropology.

Restrictions: only available to second year students in Medical

Anthropology unless have permission of instructor

Activities: Lecture, Seminar, Fieldwork

Fundamentals of anthropological research design, methods, and analysis through lectures, readings and field assignments.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### ANTHROPOL 211C Research Training Seminar (6-8 Units) Winter

Instructor(s): Ian Whitmarsh

Prerequisite(s): Required for and open only to second-year students in the

intercampus PhD Program in Medical Anthropology

Restrictions: None

Activities: Lecture, Seminar, Fieldwork, Independent Study

Fundamentals of anthropological research design, methods, and analysis through lectures, readings and field assignments.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### ANTHROPOL 225 Contemporary Issues (2-4 Units) Fall, Winter, Spring

Instructor(s): Ian Whitmarsh

Prerequisite(s): Consent of instructor

Restrictions: None

Activities: Lecture

Introduction to selected controversies and current issues in medical anthropology, including sociology; sociocultural impact of high technology medicine; abortion, euthanasia and the right to life; status of research on the etiology of mental disorders; advocacy, praxis and the social scientist.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### ANTHROPOL 249 Directed Reading (2-4 Units) Fall, Winter, Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: This course's syllabus must be agreed upon by both

instructor and student.

Activities: Independent Study, Discussion

This course focuses on the actual subject matter of the student's study area. It is customized by the instructor to each student, depending upon their exact topic of study.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ANTHROPOL 250 Research (5 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor

Restrictions: must have advanced to candidacy.

Activities: Fieldwork

In this course, students will work together with a primary advisor to outline a research proposal to take into the field. Through this experience, the student will be able to demonstrate skills in conducting fieldwork research, including ethnographic interviews, the ability to identify the key points from these interviews and make notes that assist them when writing their dissertations. At the conclusion of this course, students will present their field notes to their advisors.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# ANTHROPOL 297 Special Study (1-5 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor

Restrictions: Instructor must agree to taken on student and craft specific course for them.

Activities: Independent Study, Discussion

Independent study. This course is restricted to doctoral candidates and is for elective coursework directly related to the student's fieldwork research or dissertation writing.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

# ANTHROPOL 298 Dissertation Writing Seminar (1-2 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Open to students who have advanced to candidacy and who have completed doctoral dissertation fieldwork.

Restrictions: Course is limited to students who have completed their fieldwork and are in the dissertation writing phase of their degree.

Activities: Independent Study, Discussion

This course is for students who have finished fieldwork and data collection, and are writing their dissertation. The objective of the seminar is for students to produce draft chapters for their doctoral dissertation. It is customized by the instructor for each student(s), depending upon their exact dissertation topic.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# ANTHROPOL 299 Dissertation (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Advancement to candidacy and permission of the graduate advisor

Restrictions: student must be advanced to candidacy

For graduate students engaged in writing the dissertation for the PhD degree.

School: Graduate Division

**Department:** Medical Anthropology Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Biochemistry (BIOCHEM)**

# BIOCHEM 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None.

Activities: Independent Study

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Biochemistry And Biophysics

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

# BIOCHEM 200A Structure of Macromolecules (3 Units) Fall

Instructor(s): Dyche Mullins, David Booth

Prerequisite(s): Calculus, physical chemistry, organic chemistry, and an

advanced course in biology.

Restrictions: Instructor approval required for non-Tetrad students.

Activities: Lecture

Training in the fundamental principles governing the behaviors of biological macromolecules and the use of modern techniques in the study of these behaviors. Topics covered are: thermodynamics (entropy, equilibrium, cooperative interactions); kinetics and catalysis; structure and function of macromolecules (DNA, membranes, proteins) by X-ray and electron optics; kinetics and structure of cooperative enzymes and systems of biological control. Special emphasis on small group discussion format.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOCHEM 201A Biological Regulatory Mechanisms (4 Units) Winter

Instructor(s): Raul Andino-Pavlovsky

Prerequisite(s): Calculus, physical chemistry, organic chemistry, introductory biochemistry, an advanced course in biology, and Genetics 200A.

Restrictions: Instructor approval required

Activities: Lecture, Project, Workshop

Understanding the molecular basis for fundamental regulatory principles underlying biological processes . Topics covered are: DNA replication, RNA transcription, genome structure and organization, protein translation.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOCHEM 210 Special Topics (3 Units) Fall, Winter, Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: First-year graduate students. All other graduate and professional students with permission of Program and instructor.

Activities: Lecture, Independent Study

Discussion of selected areas in biochemistry, biophysics, and biomathematics.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### BIOCHEM 215 Laboratory Rotation (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Natalia Jura

Prerequisite(s): Consent of instructor

Restrictions: Must be enrolled in the Tetrad Graduate Program

Activities: Lab science

A laboratory rotation course to familiarize new departmental graduate students with various approaches to biochemical and biophysical research.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### BIOCHEM 220 Biochemistry Basic Science Seminar Series (1 Units) Fall, Winter, Spring

Instructor(s): Natalia Jura
Prerequisite(s): None

Restrictions: None

Activities: Lecture

Weekly seminar series on topics of current interest in the basic sciences.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOCHEM 221 Selected Topics (1 Units) Fall, Winter, Spring

Instructor(s): Natalia Jura
Prerequisite(s): None

Restrictions: Must be a current Tetrad student

Activities: Seminar

Presentations of selected topics in biochemistry by graduate students in the Department of Biochemistry.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOCHEM 225 Research in Progress Seminar (1 Units) Fall, Winter, Spring

Instructor(s): Natalia Jura Prerequisite(s): None

Restrictions: None

Activities: Seminar

This seminar will provide graduate students with a forum in which they can develop research presentation skills, critically organize and review scientific data, analyze and question oral scientific presentations, and discuss research results in the context of current knowledge in relevant fields.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### BIOCHEM 241 Startup 101 (3 Units) Winter

Instructor(s): Charles Craik
Prerequisite(s): No

Restrictions: No

Activities: Lecture, Project

This course examines how to build impactful, scalable life science/healthcare businesses from a science/technology base. Guest lectures will be delivered by entrepreneurs, investors and industry experts on topics such as opportunity recognition, business models, intellectual property, clinical/regulatory, reimbursement, capital and investor presentations. The final session will be an opportunity to pitch to investors for feedback. Enrollment is by application.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOCHEM 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Completion of 2 quarters of Biochem 215 in the year prior

Restrictions: Students must be in year 2 or above

Activities: Independent Study, Lab science

The course is intended to give students hands-on experience in investigation of a fundamental question in biology using modern techniques and approaches in Biochemistry. The scope of the research project, formulation of hypothesis, and the necessary experimental approaches taken to test the hypothesis will be determined based on active input from the student and the lab's Principle Investigator. The student is expected to become increasingly independent in each of these aspects of the project.

School: Graduate Division

Repeat course for credit? Yes

**Department:** Biochemistry And Molecular Biology Program **May the student choose the instructor for this course?** Yes **Does enrollment in this course require instructor approval?** No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes

BIOCHEM 300 Methods for teaching Biochemistry, Cell Biology and Genetics (3 Units) Fall, Winter

Instructor(s): Natalia Jura Prerequisite(s): None

Restrictions: None

Activities: Lecture, Independent Study

Practical experience in the methods and problems of teaching biochemical principles of cellular and gene functions. Includes analysis of texts and supporting material, discussion of teaching techniques, preparing for and conducting discussion or laboratory section, formulating examinations under supervision of instructor.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **Bioengineering (BIOENGR)**

# BIOENGR 215 Laboratory Rotation (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor and Bioengineering Graduate Advisor.

Restrictions: Graduate students in Bioengineering.

Activities: Lab science

Laboratory research rotations are to allow students to become familiar with different areas of research, learn new experimental techniques, obtain experiences in unique research laboratories, and ultimately to identify a lab in which to conduct dissertation research. Rotation projects should involve hands-on research and be a piece of work that the student can present at the end of the rotation.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### BIOENGR 221 Tissue Mechanobiology (2.5-3 Units) Winter

Instructor(s): Jeffrey Lotz, Tamara Alliston, Valerie Weaver

Restrictions: None

Activities: Lecture, Independent Study

A central role for many tissues is to support physical forces (tension, compression, shear, pressure). This course will introduce the mechanisms by which cells respond to load; how these mechanisms are relevant to normal function & disease etiology; progression; prevention & treatment; an overview of tissue mechanics (relationships between force, stress/strain), mechanisms of cell/matrix interactions, examples of tissue modeling & remodeling in response to physical stimuli.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOENGR 240 Principles of Magnetic Resonance Imaging (4 Units) Fall

Instructor(s): Peder Larson
Prerequisite(s): None

Restrictions: Not open to students who have passed BIOMED IMG 201. If not enrolled in Master's of Science in Biomedical Imaging (MSBI) program then students must obtain instructor approval.

Activities: Lecture

This introductory course aims to teach the basic principles behind magnetic resonance imaging (MRI). It will cover the physical principles of magnetic resonance, image formation, and image reconstruction, MRI hardware, contrast generation, and common artifacts. Cross-listed with BIOMED IMG 201.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOENGR 241 Metabolism and Magnetic Resonance Spectroscopy (3 Units) Winter

Instructor(s): John Kurhanewicz

Prerequisite(s): Bioengineering 240 or Biomedical Imaging 201

Restrictions: none

Activities: Lecture, Lab science

This course is designed to follow Bioengineering 240 or Biomedical Imaging 201, Magnetic Resonance Imaging. It will build on the fundamental aspects of magnetic resonance physics presented in the first course, but will focus on MR spectroscopy which provides metabolic and biochemical information. The course will cover basic theory, underlying biochemistry and physiology, techniques for acquiring and processing MR spectroscopic data, and biomedical applications for this emerging medical modality.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e. pursuing Master or PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

# BIOENGR 245 Machine Learning Algorithms for Medical Imaging (3-4 Units) Spring

*Instructor(s)*: Srikantan Nagarajan, Yang Yang, Ashish Raj Prerequisite(s): Calculus, linear algebra, undergraduate physics (electromagnetism), or consent of instructor.

Restrictions: None.

Activities: Lecture, Seminar, Project, Discussion

The goal of this course is for students to understand various machine learning algorithms that are used in brain imaging, and to gain hands-on experience using them in student projects, homework, and student-driven class-presentations. Common machine learning algorithms used for MRI, fMRI, EEG, MEG, and ECOG, will be the focus of the course.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIOENGR 249 Group Studies (1-8 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Graduate standing

Restrictions: None

Activities: Seminar, Project

Advanced study in various subjects through seminars on topics to be selected each year, informal group studies of special problems, group participation in comprehensive design problems, or group research on complete problems for analysis and experimentation.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOENGR 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Graduate standing

Restrictions: none

Activities: Lab science

In this course, students will work together with a primary research advisor to select a research question and design a project plan that will be carried out by the student. Through this experience, the student will gain experience in research strategy and execution, as well as experimental techniques and analysis and interpretation of results. At the conclusion of this course, the student will present on their progress.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# BIOENGR 260 Translational Challenges in Medicine (1 Units) Fall

Instructor(s): Marc Shuman
Prerequisite(s): none

Restrictions: none

Activities: Lecture

This course focuses on solutions to challenges in the diagnosis and treatment of diseases of the eye, hereditary disorders and cancer. Lecturers with diverse skills discuss their experience in navigating this process. They have successfully solved challenges in their fields that led to commercialization. They will cover technical and scientific limitations and opportunities for advances with inventions in biomarker development and technology for delivery of new types of treatment.

School: Graduate Division

**Department:** Translational Medicine Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOENGR 270 Translational Challenges: Diagnostics, Devices & Therapeutics (2 Units) Winter

Instructor(s): Shuvo Roy Restrictions: None

Activities: Lecture

This course covers a broad range of topics in the development and operation of medical diagnostics, devices, and therapeutics and combines lectures, readings, case studies, and class discussion. It will feature regular UCSF faculty as well as industry professionals.

School: Graduate Division

**Department:** Translational Medicine Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIOENGR 280 What, Why, and How of Medical Devices by Clinicians (1 Units) Winter, Spring

Instructor(s): Hanmin Lee

Prerequisite(s): Consent of instructor.

Restrictions: None
Activities: Lecture

The goal of this course is to give students interested in medical device innovation an introduction to the workings of the health system. Learners will explore the structure of hospital systems and distinguish stakeholders and their roles. By learning how different players put medical technology to use, students will learn to identify gaps and unresolved needs.

School: Graduate Division

**Department:** Translational Medicine Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOENGR 281 Biological Aspects of Bioengineering (1 Units) Fall

Instructor(s): Adam Abate
Prerequisite(s): None.

Restrictions: Graduate standing.

Activities: Lecture

The objective of this course is to introduce students to the broad range of bioengineering research that is associated with biological applications. Students will be exposed to problems in cellular and molecular engineering, tissue engineering and modeling neural and complex systems. Each session will involve presentations from invited faculty members of specific areas of research.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOENGR 283 Designing Clinical Research for Industry (2 Units) Spring

Instructor(s): Shuvo Roy

Prerequisite(s): Graduate standing

Restrictions: Instructor approval required.

Activities: Lecture

Introduces students to the strategies applied to clinical study design for a variety of medical technologies. Main elements of a clinical protocol such as objectives, study design, patient population, sample size and endpoints will be taught in context of company value creation and risk reduction. Students will receive an overview on the regulatory requirements associated with conducting clinical trials for medical technologies. Course will be taught by industry experts.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOENGR 285 Health Care Finance & Economics (2 Units) Fall

Instructor(s): Joanne Spetz Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Project, Web work

This course focuses on how current health care financing systems and emerging trends affect strategic technology development and market decisions. This course is designed so students understand the underlying drivers of rising health spending, the policies that might slow it, and the impact of possible policies on future product markets. The course covers the fundamental components of health economics, financial analysis, and strategies to increase health care value.

School: Graduate Division

**Department:** Translational Medicine Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIOENGR 296 MTM Capstone Project (UCSF) (3 Units) Fall, Winter, Spring

Instructor(s): Shuvo Roy
Prerequisite(s): None

Restrictions: This course is restricted to MTM program students.

Activities: Lecture, Project

The objective of the MTM program is to develop leaders who can synthesize the technical, economic, and social issues involved in the design and operation of complex medical devices, systems, and organizations. Students will develop and demonstrate these skills through the capstone project and course activities. This course combines classroom instruction with outside project work. In addition to lecture, teams meet with outside mentors and develop project.

School: Graduate Division

**Department:** Translational Medicine Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# BIOENGR 297 Special Study (1-8 Units) Fall, Winter, Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Seminar, Project

Reading and conferences for properly qualified students under the direction of a member of the staff.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Credian Convention: Letter Credia PAND (Does (Not Does) or

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOENGR 298 Master's Thesis for Bioengineering (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Advancement to candidacy and permission of the graduate adviser

Restrictions: none

Activities: Project

For graduate students engaged in writing the thesis for the master's

degree.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOENGR 299 Dissertation (0 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Advancement to candidacy and permission of the

graduate adviser

Restrictions: Course is limited to students who have completed their fieldwork and are in the dissertation writing phase of their degree.

Activities: Independent Study

This course is for students who have finished research and data collection, and are writing their dissertation. It is customized by the instructor for each student(s), depending upon their exact dissertation topic.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Biomedical Imaging (BIOMED IMG)**

# BIOMED IMG 200 Professionalism in the Academic Medical Center (1 Units) Fall, Winter

Instructor(s): David Saloner
Prerequisite(s): None

Restrictions: If not a registered MSBI student, by consent of the instructor

Activities: Lecture, Seminar

This course will provide an overview of elements of professional behavior in the conduct of clinical and research imaging studies. Issues around the ethical conduct of research; authorship; data management; interpersonal engagement; and preparation and presentation of research results will be discussed in the context of the Academic Medical Center. The course will include hour long seminars, participation in monthly research forums and in the Departmental Annual Research Symposium.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOMED IMG 201 Principles of Magnetic Resonance Imaging (4 Units) Fall

Instructor(s): Peder Larson
Prerequisite(s): None

Restrictions: Not open to students who have passed BIOENGR 240. If not enrolled in Master's of Science in Biomedical Imaging (MSBI) program then students must obtain instructor approval.

Activities: Lecture

This introductory course aims to teach the basic principles behind magnetic resonance imaging (MRI). It will cover the physical principles of magnetic resonance, image formation, and image reconstruction, MRI hardware, contrast generation, and common artifacts. Cross-listed with BIOENGR 240.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOMED IMG 202 Physical Principles of CT, PET, and SPECT Imaging (4 Units) Fall

Instructor(s): Youngho Seo
Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course is designed to build the basic knowledge base to understand the physical principles of x-ray computed tomography (CT), positron emission tomography (PET), and single photon emission computed tomography (SPECT). Using examples of CT, PET, and SPECT used in everyday disease management, we will introduce theoretical foundations and practical applications for comprehensive understanding of these important noninvasive imaging techniques.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOMED IMG 203 Imaging Probes for Nuclear and Optical Imaging (3 Units) Winter

Instructor(s): Henry Vanbrocklin

Prerequisite(s): Biomedical Imaging 202

Restrictions: None
Activities: Lecture

This course will cover all aspects of probe development for Optical, PET and SPECT imaging. The following topics will be highlighted: the fundamental principles of PET, SPECT and optical imaging, isotope production, chemistry of PET, SPECT and optical imaging agents, molecular imaging in cell and molecular biology and applications of molecular imaging in normal tissue and disease characterization as well as drug development.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **BIOMED IMG 204 Principles of Diagnostic and Therapeutic Ultrasound (2 Units) Winter**

Instructor(s): David Saloner

Prerequisite(s): Admission to the course is by permission of the instructor.

Restrictions: Registration in the Master's of Science in Biomedical Imaging program at UCSF or by permission of the instructor, generally to students with an undergraduate degree in the basic sciences or engineering.

Activities: Lecture

This course will introduce the physical principles of ultrasound and its interaction with tissue. Ultrasound hardware and imaging modes, including Doppler flow imaging, will be explored and demonstrated through real world examples. Therapeutic ultrasound will subsequently be introduced. Topics will include the effects of ultrasound and heating on tissue, acoustic modeling, bioheat transfer, treatment monitoring and feedback control.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **BIOMED IMG 205 Imaging Study Design (3** Units) Spring

Instructor(s): Susan Noworolski, Nancy Hills

Prerequisite(s): Biomedical Imaging 201\r\nBiomedical Imaging 202\r

\nBiomedical Imaging 260

Restrictions: None

Activities: Lecture, Project

This course will introduce principles of clinical study design as they apply to imaging studies for disease screening, diagnosis and treatment assessment. Topics will address statistical design, imaging methodologies, technology standardization and quality assessment, patient recruitment and coordination of clinical care, regulatory issues and cost factors. These considerations will be compared for studies using different imaging modalities and for application in different disease systems.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes Repeat course for credit? No

#### BIOMED IMG 209 Imaging Laboratory MR, CT, PET, & SPECT (2 Units) Fall

Instructor(s): Youngho Seo, Alastair Martin

Prerequisite(s): None

Restrictions: If not enrolled in Master's of Science in Biomedical Imaging (MSBI) program then students must obtain instructor approval.

Activities: Lecture, Lab science

This laboratory course accompanies two core lecture courses BI 201 (Principles of MR Imaging) and BI 202 (Physical Principles of CT, PET, and SPECT Imaging) that are offered in the same quarter. Basic operational techniques of MR, CT, PET, and SPECT will be covered in this course. The data from the laboratory will be analyzed for the investigations of basic scanner performance parameters. Laboratory reports will be required.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **BIOMED IMG 211 MR Pulse Sequences (3** Units) Winter, Spring

Instructor(s): Jeremy Gordon

Prerequisite(s): Biomedical Imaging 201; Basic Programming skills in C

Restrictions: None Activities: Lecture

This course will focus on the practical implementation of the basic MR principles acquired in Biomedical Imaging 201. During the course, a basic MR pulse sequence will be developed using the GE programming language EPIC. Every week, there will be one lecture with an introduction to a module and one session at the scanner implementing this module. At the end of the course, the participant should be familiar with all parts of the scanner and should be able to run and modify pulse sequences.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIOMED IMG 215 Supervised Research (3 Units) Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Independent Study

This independent study program is aimed at providing students in the Master's of Science in Biomedical Imaging (MBI) program an opportunity to perform research in an established imaging research laboratory. The course is offered in the spring quarter of the MBI program and will allow students to apply imaging concepts in a practical setting. Students will work under the supervision of a faculty member and undertake independent research of a scope that can be achieved within 10 weeks.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# BIOMED IMG 220 Advanced Neurological Imaging (3 Units) Winter

Instructor(s): Yan Li

Prerequisite(s): Familiarity with the material in Biomedical Imaging 201.

Restrictions: If not enrolled in Master's of Science in Biomedical Imaging (MSBI) program then students must obtain instructor approval.

Activities: Lecture, Project

This course on advanced Neurological imaging will introduce state of the art quantitative techniques used for diagnoses, clinical trials, and in neuroscience studies of the brain. The course will include structural and functional brain mapping techniques including morphometric analysis, diffusion MRI fiber tracking, functional MRI, perfusion MRI, MR relaxometry, and Magnetization Transfer Ratio, Diffusion Tensor, Phase and MR Spectroscopic Imaging.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

# BIOMED IMG 230 Cardiovascular Imaging (3 Units) Winter

Instructor(s): David Saloner
Prerequisite(s): none

Restrictions: none

Activities: Lecture

The course covers the use of the major imaging modalities employed to assess the cardiovascular system in health and disease. Limitations and capabilities of different modalities will be discussed. Imaging requirements for evaluating common diseases encountered clinically will be presented. The course will cover the underlying principles of each modality as they are relevant to cardiac and vascular imaging; elements of image acquisition; and data postprocessing.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### BIOMED IMG 260 Image Processing and Analysis I (2 Units) Fall

Instructor(s): Duygu Tosun-Turgut

Prerequisite(s): Mathematical background and computer programming experience is strongly recommended.

Restrictions: For Master's of Science in Biomedical Imaging students. Open to other students at the discretion of the course instructor and space permitting.

Activities: Lecture

This course covers basic digital image processing techniques used for the analysis of biomedical images. Topics include fourier transforms, spatial and frequency domain filtering, image segmentation and statistical methods used to analyze biomedical images. The course grade is based on homeworks, in-class quizzes, a final exam, and a project that requires students to demonstrate their understanding of image processing techniques using the Matlab programming environment.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIOMED IMG 260B Image Processing and Analysis I (2 Units) Fall

Instructor(s): Duygu Tosun-Turgut

Prerequisite(s): Mathematical background and computer programming experience is strongly recommended.

Restrictions: For Master's of Science in Biomedical Imaging students. Open to other students at the discretion of the course instructor and space permitting.

Activities: Lecture

This course covers basic digital image processing techniques used for the analysis of biomedical images. Topics include fourier transforms, spatial and frequency domain filtering, image segmentation and statistical methods used to analyze biomedical images. The course grade is based on homeworks, in-class quizzes, a final exam, and a project that requires students to demonstrate their understanding of image processing techniques using the Matlab programming environment.

School: Graduate Division

**Department: Biomedical Imaging Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOMED IMG 265 Image Processing and Analysis II (3 Units) Winter

Instructor(s): Janine Lupo, An Vu

Prerequisite(s): Biomedical Imaging 260 or equivalent

Restrictions: If not enrolled in Master's of Science in Biomedical Imaging (MSBI) program then students must obtain instructor approval.

Activities: Lecture, Project, Web work, Lab skills

This course is a continuation of Biomedical Imaging 260 in the Fall Quarter (Image Processing and Analysis I) and features advanced image processing techniques that are commonly performed in the field of medical imaging including arithmetic and advanced morphology analysis, registration, quantitative mapping and MR spectroscopic processing. There will be one lecture and one lab session each week. Background theory will be introduced and hands on image processing will be performed.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOMED IMG 270 Cancer Imaging (3 Units) Spring

Instructor(s): Michael Evans

Prerequisite(s): Principles of MR Imaging (BI 201)\r\nPhysical Principles of CT, PET and SPECT (BI 202)\r\nImaging Probes for Nuclear and Optical Imaging (BI 203)\r\nPrinciples of Diagnostic and Therapeutic Ultasound (BI 204)

Restrictions: None
Activities: Lecture

The course will build on the basics taught in the core imaging courses and address the application of imaging methods to inform on cancer. Biological aspects of the disease that lend themselves to anatomic, functional, metabolic and molecular imaging will be presented. The use of established and emerging approaches to image cancer in cell, tissue and animal models will be taught. Major cancer types and the imaging methods commonly used in the clinic will then be introduced by UCSF clinicians.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOMED IMG 280 Musculoskeletal, Abdominal, and Pelvic Imaging (3 Units) Spring

Instructor(s): Susan Noworolski, Galateia Kazakia Prerequisite(s): Familiarity with the material in BIOMED IMG 201 -Principles of Magnetic Resonance Imaging

Restrictions: None
Activities: Lecture

This course will focus on imaging of the body, including organs and tissues in the abdomen, the pelvis, and the musculoskeletal system. It will build on the fundamental principles developed in the core imaging courses. Particular challenges of imaging the body will be covered along with methods to address them. Quantitative imaging metrics of tissue composition and function will be covered as well as clinical applications.

School: Graduate Division

**Department:** Biomedical Imaging Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **BIOMED IMG 298 Thesis (6 Units) Summer**

Instructor(s): Staff

Prerequisite(s): Biomedical Imaging 215

Restrictions: Requires approval of thesis topic.

Activities: Independent Study

Students in the Master's of Science in Biomedical Imaging (MSBI)program will have the option to undertake a thesis project at the completion of their course work. This research project will be performed under the supervision of a faculty member and the thesis topic will require pre-approval.

School: Graduate Division

**Department: Biomedical Imaging Program** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

#### **Biomedical Informatics (BIO MD INF)**

# BIO MD INF 203 Biocomputing Algorithms (4 Units) Winter

Instructor(s): Tony Capra

Prerequisite(s): Students are expected to have programming competence in a language such as Python, C, C++, or Fortran. Students should also posses a basic knowledge of statistics (undergrad. level). In addition, to take the course, all incoming for-credit students must pass a brief programming background technical assessment, conducted with a TA by Zoom. It is the students responsibility to arrange a meeting for the assessment.

Restrictions: For all iPQB students and Bioengineering students. Others require instructor approval.

Activities: Lecture

Introduction to computational issues and methods used in the field of bioinformatics and computational biology. This course emphasizes the implementation, analysis, and validation of methods. It is about attacking computational problems in biology, not expert use of existing tools. Areas addressed include analytical thinking, problem decomposition, and algorithm design and implementation. Assignments will focus on the design and implementation of key bioinformatics algorithms.

School: Graduate Division

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### BIO MD INF 206 Statistical Methods for Bioinformatics (4 Units) Fall

Instructor(s): Katie Pollard

Prerequisite(s): Upper division course work in biological sciences including knowledge of proteins and protein structure, computer literacy.

Restrictions: None.

Activities: Lecture, Project

Broad survey of bioinformatics with accompanying assignments. Topics covered include genomics, database searching, family/super-family analysis, structural genomics, complex systems, genetic circuits, and protein-protein interactions.

School: Graduate Division

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIO MD INF 219 Special Topics in Bioinformatics (3 Units) Fall, Spring

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: Priority given to first-year graduate students.

Activities: Lecture, Independent Study

Each course offering will focus on the literature of a current important area of Bioinformatics. Students will be expected to read assigned papers critically before class and to present and discuss papers in class. Students will also be expected to write and present a brief research proposal based upon their reading. Topics in Molecular, Cellular, developmental, systems, and computation biology will be covered in separate course offerings.

School: Graduate Division

Repeat course for credit? Yes

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes

# BIO MD INF 220 Informatics Seminar (1 Units) Fall, Winter, Spring

Instructor(s): Ryan Hernandez
Prerequisite(s): None.

Restrictions: n/a

Activities: Lecture

This course consists of presentation and discussion of research in quantitative biology and bioinformatics by outside speakers.

School: Graduate Division

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

# BIO MD INF 221 Informatics Rotation (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Lab science

An introduction to the specific research currently underway within a faculty member's laboratory.

School: Graduate Division

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIO MD INF 222 Student Informatics Seminar (1 Units) Fall, Winter

Instructor(s): Ryan Hernandez
Prerequisite(s): None

Restrictions: Must be a student in the Biological & Medical Informatics

**Graduate Program** 

Activities: Seminar

This course gives students the opportunity to develop and polish their presentation and research skills. All second year and above BMI students present their research to other students, postdocs and faculty. Their presentations are critically evaluated and they are provided with constructive feedback regarding their discussion topic and presentation skills.

School: Graduate Division

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# BIO MD INF 223 Critical Topics in Biomedical Informatics (1 Units) Fall, Winter, Spring

Instructor(s): Jim Wells
Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

Critical review of published scientific papers from scholarly journals, including comprehension, analysis and evaluation of published scientific data.

School: Graduate Division

**Department:** Biological And Medical Informatics Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# BIO MD INF 250 Research (4-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Project

In this course, students will work together with a primary research advisor to select a research question and design a project workplace that will be carried out by the student. Through this activity, the student will gain experience in research strategy, learn techniques associated with modern biomedical research, and practice how to interpret results. At the conclusion of the course, the student will present on their progress.

School: Graduate Division

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### BIO MD INF 311 Curricular Development and Academic Leadership (0.5-4 Units) Fall, Winter, Spring

Instructor(s): Ryan Hernandez Prerequisite(s): None

Restrictions: BMI students only

Activities: Seminar, Workshop, Lab science, Discussion

The Curricular Development & Academic Leadership course will offer training and leadership to prepare graduate students in scientific leadership roles in the classroom and beyond. Students will have a hands-on approach to structuring and executing a curriculum. Students must submit an application prior to course enrollment.

School: Graduate Division

Department: Biological And Medical Informatics Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Biomedical Sciences (BIOMED SCI)**

# BIOMED SCI 116 Structure of Cells, Tissues, and Organs (8 Units) Fall

Instructor(s): Elizabeth Joyce, Barbie Klein

Prerequisite(s): none

Restrictions: D1

Activities: Lecture

With a patient population that is increasingly medically complex, today's dentist must have a sound understanding of the structure and function of the body. In this course, students will be introduced to human gross anatomy and histology, as well as concepts in general pathology. This provides the foundation for increasingly complex coverage of structure/function relationships that underlie health and disease, with emphasis on those that impact dental care.

School: Dentistry

**Department:** Cell And Tissue Biology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### BIOMED SCI 117 Infection and Host Response; Cell Physiology (8 Units) Winter

Instructor(s): Elizabeth Joyce, Zachary Knight

Prerequisite(s): none

Restrictions: D1

Activities: Lecture, Seminar, Independent Study, Project

This course will provide a foundation in the microbiologic, immunologic, and pharmacologic therapies used to treat and prevent infectious diseases, which rank among the leading causes of morbidity and mortality world-wide. Additionally, to better understand how medications like local anesthetics work, this course will provide a foundation in membrane structure, membrane transport, signaling, neurophysiology, and local anesthetics. This latter material will dovetail with the subsequent courses.

School: Dentistry

**Department:** Cell And Tissue Biology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### BIOMED SCI 118 Organ Systems and Human Pathophysiology I (8.5 Units) Spring

Instructor(s): Elizabeth Joyce, Barbie Klein

Prerequisite(s): Successful completion of Biomed 117 or consent of

instructor.

Restrictions: D1

Activities: Lecture, Independent Study, Lab science

A contemporary dentist has a solid understanding of medical conditions that will impact the safe delivery of a patients care. In this course, students will learn about the cardiovascular, respiratory, renal, neurology, gastrointestinal, endocrine, and hematologic systems.

School: Dentistry

**Department:** Cell And Tissue Biology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **BIOMED SCI 127 Oral Pathology (2 Units) Fall**

Instructor(s): Richard Jordan
Prerequisite(s): none

Restrictions: D2s, ID2s, ID3s

Activities: Lecture

This course is a clinically focused didactic course that will cover most soft tissue and bone diseases that may be seen in dental patients. Familiarity with etiology, clinical appearances, and treatment of oral mucosal conditions will be important in advising and managing your patients. Included are primary oral diseases and oral manifestations of systemic diseases, which can range from trivial to life threatening.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### BIOMED SCI 186 Advanced Dissection in Head and Neck Anatomy (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Barbie Klein

Prerequisite(s): Successful completion of BMS 116

Restrictions: Enrollment requires permission of instructor and is limited

to the DDS students in 1st, 2nd, 3rd and 4th years.

Activities: Lab science

This advanced elective allows students to review, refine, and consolidate their knowledge of gross anatomy through cadaveric dissection and literature review of clinical applications related to the area of dissection. Each student, in consultation with an instructor, will determine a dissection area (or areas) of interest and develop an individual plan of study. Assessments include a formal presentation of the final prosection and creation of a teaching and learning resource related to the area.

School: Dentistry

**Department:** Cell And Tissue Biology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### BIOMED SCI 187 Laboratory Instruction in Gross Anatomy (1.5 Units) Fall

Instructor(s): Barbie Klein

Prerequisite(s): Successful completion of BMS 116, 117, and 118.

Restrictions: Enrollment requires permission of instructor.

Activities: Lab skills

This course provides advanced training for dental students interested in anatomical sciences. Upper-class students will serve as teaching assistants for 1st year dental students in virtual gross anatomy laboratory sessions. It provides reinforcement of anatomic knowledge covered in the 1st year of dental education in preparation for National Board exams. Students also gain experience instructional methods and the opportunity to explore careers in academic dentistry with a teaching component.

School: Dentistry

**Department:** Cell And Tissue Biology

Repeat course for credit? No

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No

## BIOMED SCI 215 Laboratory Rotation (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: None.

Activities: Lab science

Research experience in the laboratory of Biomedical Sciences faculty

members.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### BIOMED SCI 216 Supervised Study (1-5 Units) Fall, Winter, Spring

Instructor(s): Tien Peng, Bruce Wang

Prerequisite(s): None

Restrictions: None.

Activities: Independent Study

Library research and directed reading under supervision of a member of

the faculty.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIOMED SCI 221 Seminars in Biomedical Sciences (1 Units) Fall, Winter, Spring

Instructor(s): Matthew Kutys
Prerequisite(s): none

Restrictions: none

Activities: Seminar

Seminar: Weekly seminar series held at Parnassus and livestreamed to the UCSF community, or held virtually via Zoom in some cases. Seminar speakers chosen by a BMS faculty committee after soliciting suggestions from all BMS faculty and students. Seminar topics will include recent experimental findings in human biology and disease.

School: Graduate Division

**Department: Biomedical Sciences Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### BIOMED SCI 225A Biostatistics and Computational Biology (2.5 Units) Fall

*Instructor(s):* Adam Ferguson Prerequisite(s): None.

Restrictions: Admission to UCSF Graduate Program or permission of

instructor.

Activities: Lecture, Workshop, Discussion

This course provides a module-based overview of the biostatistical ideas and tools needed to work as a biomedical researcher. The course includes classes in Unix, Python and R. Other modules cover study designs, summarizing data, distributions, hypothesis testing, using R for biostatistical analysis, performing and reporting reproducible analysis, multiple test correction, and practical considerations for outliers and robust statistics.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOMED SCI 225B Science Communication for Biomedical Scientists (3 Units) Winter

*Instructor(s):* Mary Helen Barcellos-Hoff Prerequisite(s): None.

 $\label{lem:control_control_control} \textbf{Restrictions: Admission to UCSF Graduate Program or permission of}$ 

instructor.

Activities: Lecture, Project, Workshop

An integrative course emphasizing frontiers in cell and molecular biology of human tissue and organ systems. It is intended to provide a foundation in human anatomy, histology, immunology, physiology and pathobiology for graduate students. Rather than a comprehensive course, selected topics will be discussed in depth. The emphasis may shift each year, depending on which topics are relevant and timely.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOMED SCI 230 Advanced Topics in Cancer Research (0.5 Units) Fall

Instructor(s): Trever Bivona Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Seminar

Lectures will guide understanding of the epidemiologic, molecular genetic, cell and pathobiological aspects of cancer focusing on 1) regulatory and effector mechanisms, 2) the cells constituting tumor microenvironments, and 3) relationships between basic biomedical research and their clinical applications. In Advanced Topics, students will present literature reports based on Lecture content supported by a Faculty Discussion leader who will pose an interesting/controversial spin on the topic.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### BIOMED SCI 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Completion of prior laboratory rotations.

Restrictions: None

Activities: Lab science

Dissertation research in a Biomedical Sciences Program approved

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### BIOMED SCI 255 Basic Genetics & Genomics (4 Units) Winter

Instructor(s): Joachim Li
Prerequisite(s): None

Restrictions: Students who are not in a UCSF graduate program must get permission from the instructor to take the course.

Activities: Lecture, Discussion

The scope of this graduate level course in genetics is to convey an understanding of basic genomics and molecular genetics, of the use of genetic animal model systems and of the analytical principles of simple and complex human genetic traits.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOMED SCI 260 Cell Biology (4 Units) Fall

Instructor(s): Jeroen Roose, Bassem Al-Sady

Prerequisite(s): no

Restrictions: Enrollment limited to students in the BMS, DSCB, OCS and MSTP programs. Other students may enroll only with consent of course directors.

Activities: Lecture, Project

The scope of this course is to convey an understanding of the function and organization of molecules and organelles inside and outside the cell and how these are used to construct a multicellular tissue and organ. The course will concentrate on questions related to how cells function, including how they grow, divide and die, and how they move, secrete and communicate.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOMED SCI 270 Special Topics in Biomedical Sciences (3 Units) Spring

Instructor(s): Staff

Prerequisite(s): None. Completion of first-year curriculum in Biomedical Sciences or another experimental biology graduate program is helpful but not essential.

Restrictions: Biomedical Sciences graduate students and other graduate and professional students with interest in Biomedical Sciences.

Permission from instructor is required.

Activities: Lecture, Independent Study

Each course offering will focus on literature of a current important area of Biomedical Sciences research. Students will be expected to read assigned papers critically before class and to present and discuss papers in class. Students will also be expected to write and present a brief research proposal based upon their reading.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# BIOMED SCI 300 Methods in Teaching Human Biology and Disease (1 Units) Fall, Winter, Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Lecture, Workshop

Lecture/discussion: Practical experience in the methods and problems of teaching human biology and disease. Includes analysis of texts and supporting material, discussion of teaching techniques, preparing for and conducting discussion or laboratory sections, formulating examinations under supervision of instructor.

School: Graduate Division

**Department: Biomedical Sciences Program** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# **Biopharmaceutical Sciences** (BIOPHRM SC)

#### BIOPHRM SC 133 Pharmacokinetics in Drug Development (3 Units) Spring

Instructor(s): Fran Aweeka

Prerequisite(s): Satisfactory completion of BPS 122.

Restrictions: None.

Activities: Lecture, Project

The course will provide advanced training in pharmacokinetics with a focus on the issues involved with drug development.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### BIOPHRM SC 134 Research Design & Statistics in Drug Development (3 Units) Winter

Instructor(s): Nancy Sambol
Prerequisite(s): None.

Restrictions: This course is required for students in the Pharmaceutical Sciences Pathway, but is open to all students as an elective if space permits.

Activities: Lecture, Project

This course covers detailed aspects of optimizing research design for clinical and basic research. The material presented builds on the content covered in the Study Design Course of the first year curriculum. Design strategies for varying types of research as well as skills for critical evaluation of research studies and literature will be the primary focus. In addition, the ethics of using animals and humans will be discussed.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### BIOPHRM SC 135 Principles of Pharmacogenomics (3 Units) Spring

Instructor(s): Nadav Ahituv Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Conference

This course provides students with a comprehensive overview of the genetic basis for differences in drug response. Genetic variability in drug receptors, transporters and enzymes as well as regulatory proteins involved in promoting and inhibiting transcription and translation will be discussed. The course also covers toxicogenetics and an introduction to computational genomics.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Biophysics (BIOPHYSICS)**

### BIOPHYSICS 204A Macromolecular Structure and Interactions (4 Units) Fall

*Instructor(s):* Robert Stroud, Andrej Sali Prerequisite(s): None.

Restrictions: First year Biophysics and CCB students

Activities: Lecture, Project, Lab science

In this course, we will pursue a qualitative & quantitative understanding of the physical basis of macromolecular function. We will examine: the nature & quantification of the forces that drive macromolecular interactions, both intramolecular (macromolecular folding), & with other proteins and ligands; diffusion & active transport of macromolecules; the structural underpinnings of the kinetics & thermodynamics of macromolecular reactions; & the physical basis of important biophysical methods.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOPHYSICS 204B Methods in Macromolecular Structure (4 Units) Winter

Instructor(s): John Gross, Aashish Manglik, Kliment Verba Prerequisite(s): None

Restrictions: None

Activities: Lecture, Fieldwork, Project, Lab science

This is a team-based class where students work in small groups develop their own analysis of real data that they have collected. Statistical aspects of rigor and reproducibility in structural biology will be emphasized throughout lectures, journal club presentations, and handson activities.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOPHYSICS 205B Complex Biological Systems B (2.5-4 Units) Winter

Instructor(s): Hani Goodarzi, Luke Gilbert

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Project, Lab science

This course will teach the fundamentals of dissecting and understanding complex biological systems using didactic instruction in addition to practical lab experience in the context of a team based project. For each project, students will learn and use modern genomic and proteomic tools to characterize transcriptional circuits within a model organism. This course is a continuation of material introduced in 205A.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOPHYSICS 215 Laboratory Rotation (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Lab science

An introduction to the specific research currently underway within a faculty member's laboratory.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### BIOPHYSICS 219 Special Topics in Biophysics (3 Units) Fall, Spring

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: First-year graduate students; other graduate and

professional students with permission of instructor.

Activities: Lecture, Independent Study

Each course offering will focus on the literature of a current important area of Biophysics. Students will be expected to read assigned papers critically before class and to present and discuss papers in class. Students will also be expected to write and present a brief research proposal based upon their reading. Topics in Molecular, Cellular, Developmental Systems and Computational Biology will be covered in individual courses.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### BIOPHYSICS 220 Biophysics Seminar (1 Units) Fall, Winter, Spring

Instructor(s): Alan Frankel Prerequisite(s): None.

Restrictions: n/a

Activities: Lecture

This course consists of presentation and discussion of research in quantitative biology and biophysics by outside speakers.

School: Graduate Division

Department: Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### BIOPHYSICS 223 Scientific Communication Seminar (1 Units) Fall, Winter, Spring

Instructor(s): Aashish Manglik, Daniele Canzio, Allison Williams

Prerequisite(s): None

Restrictions: None
Activities: Seminar

This seminar will provide graduate students with a forum in which to develop seminar and poster presentation skills; critically organize and critically review scientific data; and analyze and question oral scientific presentations.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### BIOPHYSICS 224 Critical Topics in Biophysics (1 Units) Fall, Winter, Spring

Instructor(s): Jim Wells, Lani Wu

Prerequisite(s): None

Restrictions: None

Activities: Lecture

Critical review of published scientific papers from scholarly journals, including comprehension, analysis and evaluation of published scientific data.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **BIOPHYSICS 241 Physical Biology (5 Units) Fall**

Instructor(s): Michael Grabe
Prerequisite(s): none

Restrictions: none
Activities: Lecture

This is a course on molecular thermodynamics and statistical mechanics. It covers the concepts of entropy, enthalpy, heat capacity, free energy, ligand binding, solvation, the properties of water, the hydrophobic effect, solution electrostatics, adsorption, and physical and chemical kinetics.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOPHYSICS 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): BIOPHYSICS 204A, BIOPHYSICS 204B

Restrictions: NA
Activities: Project

In this course, students will work together with a primary research advisor to select a research question and design a project workplan that will be carried out by the student. Through this activity, the student will gain experience in research strategy, learn techniques associated with modern biomedical research and practice how to interpret results. At the conclusion of the course, the student will present on their progress.

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

#### BIOPHYSICS 297 Scientific writing: applying for the NSF predoctoral fellows (1 Units) Fall

Instructor(s): Zev Gartner
Prerequisite(s): None

Restrictions: None

Activities: Seminar, Workshop

Communicating your best ideas is critical to obtaining the resources necessary to work on them. This course prepares you to conceive, organize, and communicate scientific ideas in written form. Built around the NSF GRF application, this course covers important funding agencies and fellowship opportunities, formulating a research plan in the form of hypotheses and specific aims, organizing research proposals, and peer editing. Course culminates in submission of materials to NSF and other agencies

**School:** Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOPHYSICS 299 Dissertation (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Advancement to candidacy and permission of the graduate adviser

Restrictions: Graduate students after advancement to candidacy

For graduate students engaged in writing the dissertation for the PhD degree.

School: Graduate Division

Department: Biophysics Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **BIOPHYSICS 311 Curricular Development and Academic** Leadership (0.5-4 Units) Fall, Winter, Spring

Instructor(s): Tanja Kortemme Prerequisite(s): None

Restrictions: Biophysics students only

Activities: Seminar, Workshop, Lab skills, Discussion

The Curricular Development & Academic Leadership course will offer training and leadership to prepare graduate students in scientific leadership roles in the classroom and beyond. Students will have a hands-on approach to structuring and executing a curriculum. Students must submit an application prior to course enrollment.

School: Graduate Division **Department:** Biophysics Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **Biostatistics (BIOSTAT)**

#### **BIOSTAT 200 Biostatistical Methods in Clinical** Research I (3 Units) Fall

Instructor(s): Ali Mirzazadeh Prerequisite(s): None

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project, Lab skills

Course is an introduction to the study of biostatistics. Course addresses types of data, their summarization, exploration and explanation, as well as concepts of probability and their role in explaining uncertainty. Course concludes with coverage of inference applied to means, proportions, regression coefficients and contingency tables. Throughout the course, the software program STATA will be used.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **BIOSTAT 202 Opportunities and challenges of complex** biomedical data (3 Units) Summer

Instructor(s): Karla Lindquist Prerequisite(s): None

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project, Lab skills

This is an introduction to the opportunities and challenges of using large datasets for biomedical research. Topics to be covered include: What makes big data different? What big data can and cannot do. Phases of data science: getting data, merging and cleaning data, storing and accessing data, visualizing or telling stories with data, drawing conclusions from data. Introduction to supervised and unsupervised machine learning including detailed discussion of algorithms and model fitting.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **BIOSTAT 208 Biostatistical Methods II (3 Units) Winter**

Instructor(s): Aaron Scheffler

Prerequisite(s): Designing Clinical Research (EPI 202), and Biostatistical Methods I (BIOSTAT 200). Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture

Instruction in multiple predictor analyses as a tool for control of confounding and for constructing predictive models. Topics will include exploratory data analyses, linear regression, and logistic regression. The STATA statistical package will be used.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### BIOSTAT 209 Biostatistical Methods III (3 Units) Spring

Instructor(s): Chiung-Yu Huang

Prerequisite(s): EPIDEMIOL 202, BIOSTAT 208. Possession of a graduate or professional doctoral degree (MD, PhD, DDS, PharmD, or international equivalent), currently enrolled in an undergraduate, graduate, or professional school, or relevant work experience. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project, Lab science

Advanced instruction in multiple predictor analyses. Topics will include survival analysis and regression for repeated measures. In the final weeks of the course, participants will receive individualized instruction for the analysis of their own data.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, \ P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOSTAT 210 Biostatistical Methods IV (2 Units) Fall

Instructor(s): Dave Glidden

Prerequisite(s): Possession of MD, PhD, DDS or PharmD degree and Epidemiology 202 and Biostatistics 208 and 209. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture

This is a continuation of the Biostatistical Methods in Clinical Research series, covering additional methods in multi-predictor analyses and allowing more in-depth exploration of the topics cobered in Biostat I, II and III. Topics in survival analysis and longitudinal analysis will be emphasized and students are also encouraged to utilize their own projects to motivate discussion and to suggest topics of interest.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course**: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### BIOSTAT 211 Mathematical Foundations of Biostatistics (2 Units) Winter

Instructor(s): Fei Jiang

Prerequisite(s): Calculus is a prerequisite for this class. For example, students must understand integration and derivatives. A previous or concurrent course in introductory biostatistics is preferred, BIOSTAT 200

Restrictions: This course is part of the Epidemiology and Translational Science PhD program and may have space limitations. Auditing is not permitted.

Activities: Lecture

The goal of this course is to equip students with core statistical concepts and methods. In this course students will learn mathematical, computational, statistical and probabilistic background; the basics of probability distributions including the definitions of density functions, cumulative distributions, moments of the distributions; theory and methods for point estimation; and methodology for the construction of hypothesis testing and confidence intervals. R statistical software will be used

School: Graduate Division

Department: Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

#### BIOSTAT 212 Introduction to Statistical Computing in Clinical Research (1 Units) Summer

Instructor(s): Aida Venado Estrada

Prerequisite(s): EPI 180.04 and possession of a MD, PhD, DDS or PharmD or equivalent doctoral degree. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted. Preference is given to UCSF-affiliated personnel.

Activities: Lecture

This course will introduce clinical researchers to the use of computer software for managing and analyzing clinical research data. Currently available statistical packages will be described and the roles of spreadsheet and relational database programs discussed. Use of STATA for managing, cleaning, describing, and analyzing data will be taught in lecture and laboratory sessions.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### BIOSTAT 213 Programming for Health Data Science in R (2 Units) Summer

Instructor(s): Stathis Gennatas

Prerequisite(s): No prior programming experience is required.

Restrictions: This course is part of the Training in Clinical Research (TICR) and Health Data Science Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Lab science

Vast amounts of health-related data are being generated daily and at an increasing rate. Our ability to extract insights and make the most of these resources depends on the effective and efficient use of computational tools to preprocess, visualize, and analyze different types of data. BIOSTAT 213 is an introductory programming course which aims to provide hands-on experience in the R language and enable further work in biostatistics, epidemiology, and machine learning/health data science.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, \ P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOSTAT 214 Programming for Health Data Science in R II (2-3 Units) Fall

Instructor(s): Stathis Gennatas, John Kornak Prerequisite(s): BIOSTAT 213 or equivalent.

Restrictions: This is a core course of the Health Data Science (HDS) program and part of the Training in Clinical Research Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Lab skills

R programming course to enable work in any field including biostatistics, epidemiology, data science/machine learning. This course builds on students prerequisite core R language knowledge to cover skills in advanced data transformations, visualization, working with big (inmemory) data, report-writing, and core statistic testing.

School: Graduate Division

**Department:** Clinical Research Program

Is this a web-based online course? No

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOSTAT 215 Strengthening causal inferences based on observational data (3 Units) Spring

Instructor(s): Thomas Newman

Prerequisite(s): EPIDEMIOL 203, BIOSTAT 208, and BIOSTAT 209 (may be enrolled concurrently). Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture. Lab skills. Discussion

The course will define causal effects in terms of potential outcomes, show when standard regression methods do and do not support causal inferences, and show how to estimate and interpret marginal and conditional causal effects. It will also cover propensity scores, inverse probability weighting, marginal structural models (for time-dependent treatments with time-dependent confounder/mediators), mediation analysis, new-user designs, instrumental variables, and principal stratification.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### BIOSTAT 216 Machine Learning in R for the Biomedical Sciences (3 Units) Winter

Instructor(s): Adam Olshen

Prerequisite(s): BIOSTAT 208, BIOSTAT 213 & BIOSTAT 209. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting. Strongly recommended: EPI 204 & BIOSTAT 202

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project

This is a course that covers machine learning methods as they apply to areas of biomedical research and will teach how to implement the methods in R. Topics to be covered include: What is Machine learning? Prediction techniques (including classification) and methods for assessing them, Cross-validation, penalized regression methods such as lasso, boosting, bagging and ensemble methods, pattern recognition, deep learning, and data reduction methods, and machine learning meta packages in R.\r\n

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### BIOSTAT 272 Foundations in Biostatistical Principles and Methods (4 Units) Fall

Instructor(s): Patrick Phillips, Suzanne Dufault

Prerequisite(s): There are no formal prerequisites. Students are expected to have knowledge of undergraduate statistics. We will primarily use the R programming language, so familiarity with R is helpful. Students are encouraged to take advantage of the PSPG R programming bootcamp

Restrictions: None

Activities: Lecture, Project, Workshop

This course provides a foundation in modern biostatistical methods and statistical reasoning for pharmaceutical sciences research. The course will explore common data types and distributions, experimental design, exploratory data analysis, methods for hypothesis testing (both parametric and non-parametric), and model-building and comparison. During this hands-on course, students will reinforce their understanding by implementing what they have learned in R.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# BIOSTAT 273 Introduction to Biostatistics (1 Units) Fall

Instructor(s): David Quigley
Prerequisite(s): None

Restrictions: None

Activities: Web work, Workshop

This course provides an introduction to biostatistical methods. The course emphasizes practical considerations required to design studies, perform elementary analysis, and become an informed consumer of statistical data. Topics include study design, exploratory data analysis, the P value and hypothesis testing, power analysis, and reproducible analysis methods using the R statistical environment.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Cell Biology (CELL BIOL)**

#### CELL BIOL 245 Cell & Developmental Biology (4 Units) Fall

Instructor(s): Maxence Nachury

Prerequisite(s): Calculus, physical chemistry, organic chemistry, and an advanced course in biology are highly desirable.

Restrictions: Instructor approval required for non-Tetrad students.

Activities: Lecture

Training in the modern aspects of the molecular basis of cell function with emphasis on how cells move, secrete, divide, and communicate with each other.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### CELL BIOL 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Completion of 2 quarters of Biochemistry 215 in the year

Restrictions: Students must be in year 2 or above

Activities: Independent Study, Lab science

The course is intended to give students hands-on experience in investigation of a fundamental question in biology using modern techniques and approaches in Cell Bio. The scope of the research project, formulation of the hypothesis, and the necessary experimental approaches taken to test the hypothesis will be determined based on active input from the student and the lab's Principle Investigator. The student is expected to become increasingly independent in each of these aspects of the project.

**School:** Graduate Division **Department:** Cell Biology Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

#### **Chemistry (CHEMISTRY)**

# CHEMISTRY 206 Laboratory Rotation in Chemistry and Chemical Biology (1-10 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: More than 4 rotations requires consent of the Program  $\,$ 

Director.

Activities: Lab science

A laboratory rotation course to familiarize new students in the Graduate Program in Chemistry and Chemical Biology with various approaches to research in the pharmaceutical sciences.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### CHEMISTRY 219 Special Topics in Basic and Translational Chemical Biology (3 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): None. Completion of 1st year curriculum in Chemistry and Chemical Biology or another experimental biology graduate program is helpful, but not essential.

Restrictions: Chemistry and Chemical Biology graduate students, other graduate and professional students with interest in Chemical Biology. Permission from instructor is required.

Activities: Lecture, Independent Study

Each course offering will focus on the literature of a current area of Chemical Biology research. Students will be expected to read assigned papers critically before class and then be prepared to ask questions. In addition, each student will select a paper and lead that discussion. To further enhance the educational mission, each student will work with the instructor and other faculty coaches in preparing their presentation.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### CHEMISTRY 221 Research Conf in Chem, Chem Biol & Biophysics (1 Units) Fall, Winter, Spring

Instructor(s): Jason Gestwicki

Prerequisite(s): Graduate standing in the CCB program.

Restrictions: None.
Activities: Seminar

A series of weekly research conferences by visiting lecturers, on the broad topics of chemistry and chemical biology. In this course, students attend the seminar and then engage in a lively discussion session. In addition, a subset of students each week will also attend lunch with the visiting speaker.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### CHEMISTRY 223 Scientific Communication Seminar (1 Units) Fall, Winter, Spring

*Instructor(s):* Jason Gestwicki Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

This seminar will provide graduate students with a forum in which to develop seminar and poster presentation skills; critically organize and critically review scientific data; and analyze and question oral scientific presentations.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### CHEMISTRY 225 Graduate Research Opportunities (1 Units) Fall, Winter, Spring

Instructor(s): Jason Gestwicki
Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

A series of weekly presentations of the research interests of the basic science faculty in the CCB program. The purpose is to acquaint new graduate students with the research in these laboratories, so that they can make informed decisions about collaborations, research rotations and thesis laboratory projects.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### CHEMISTRY 243 Chemical Biology (5 Units) Fall

Instructor(s): Charles Craik
Prerequisite(s): None

Restrictions: None

Activities: Lecture

The basics of chemical biology will be discussed, with a particular emphasis on how chemical methods can be used to understand and manipulate complex biochemical and biological phenomena. Discussion periods will focus on applications in a range of topics, including macromolecular structure, protein function and signaling mechanisms. This course includes didactic lectures from experts in chemical biology, along with journal club discussions and the preparation and defense of an original proposal.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### CHEMISTRY 244 Reaction Mechanisms (3 Units) Winter

Instructor(s): Ian Seiple

Prerequisite(s): Graduate standing or consent of instructor.

Restrictions: None
Activities: Lecture

This course is designed to develop the student's knowledge of organic mechanisms. This interactive course involves some lectures, but enforces student learning through intensive arrow pushing sessions with students at the board. Topics include electrocyclic reactions, Woodward-Hoffman rules, sigmatropic reactions, migration reactions, neighboring group effects, carbanions and free radicals, carbenoids, nitrenes, sixmembered heterocyclic rings, five-membered heterocyclic rings.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### CHEMISTRY 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): CHEMISTRY 225

Restrictions: NA

Activities: Project

In this course, students will work together with a primary research advisor to select a research question and design a project workplan that will be carried out by the student. Through this activity, the student will gain experience in research strategy, learn techniques associated with modern biomedical research and practice how to interpret results. At the conclusion of the course, the student will present on their progress.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

#### CHEMISTRY 266 Research Planning Conference (1 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor

Restrictions: None

Discussion and practice of research problem formulation and experimental design. Sessions are organized around students' interests by faculty within the area of specialization.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### CHEMISTRY 297 Chemistry and Chemical Biology Journal Club (1 Units) Fall, Winter, Spring

Instructor(s): Jim Wells
Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

Readings and conferences based on topics in chemistry and chemical biology. Students are required to present in journal club, once in the first year and once in the second year. This experience will assist students in perfecting communication skills of the scientific literature.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### CHEMISTRY 311 Curricular Development and Academic Leadership (0.5-4 Units) Fall, Winter, Spring

Instructor(s): Jason Gestwicki
Prerequisite(s): None

Restrictions: CCB students only

Activities: Seminar, Workshop, Lab skills, Discussion

The Curricular Development & Academic Leadership course will offer training and leadership to prepare graduate students in scientific leadership roles in the classroom and beyond. Students will have a hands-on approach to structuring and executing a curriculum. Students must submit an application prior to course enrollment.

School: Graduate Division

Department: Chemistry And Chemical Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **Clinical Pharmacy (CL PHARM)**

### CL PHARM 135 Applied Drug Information (0.5 Units) Winter

Instructor(s): Candy Tsourounis

Prerequisite(s): Clinical Pharmacy 135A and successful completion of all core courses through fall of P3 year.

Restrictions: None.
Activities: Project

Completion of a written assignment that involves a review of the literature, critical appraisal and summary of multiple drug studies, and active participation in the peer review process.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 151.1 Pediatric Pharmacotherapy I (1 Units) Winter

Instructor(s): Leigh Witherspoon, Sarah Lucas, Rebecca Deoras Prerequisite(s): First-, second- or third-year standing in School of Pharmacy.

Restrictions: Class size may be limited by instructor. (If limited, sign up sheet will be posted).

Activities: Lecture, Workshop

A survey course of the common childhood diseases. The course will cover the basic principles and applied pharmacology of diseases of children as well as common problems such as dosage delivery, adverse reactions and immunization requirements for the pediatric patient.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### CL PHARM 151.2 Pediatric Pharmacotherapy II (1 Units) Winter

*Instructor(s):* Leigh Witherspoon, Sarah Lucas, Rebecca Deoras Prerequisite(s): First-, second- or third-year standing in School of Pharmacy. CP 151.1 is not a prerequisite.

Restrictions: Class size may be limited by instructor. (If limited, sign up sheet will be posted).

Activities: Lecture, Workshop

A survey course of the common childhood diseases. The course will cover the basic principles and applied pharmacology of diseases of children as well as common problems such as dosage delivery, adverse reactions and immunization requirements for the pediatric patient.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### CL PHARM 152.1 Intro to the Pharmacy and Therapeutics Formulary Process (0.5 Units) Fall

Instructor(s): Shalini Lynch, Trang Trinh

Prerequisite(s): None.

Restrictions: None
Activities: Workshop

This course introduces students to the Pharmacy & Therapeutics (P&T) formulary process employed as a quality, safety and management tool by health plans, medical groups, and hospitals. Students will gain exposure to P&T topics from lectures including how to evaluate the scientific evidence and cost-effective analysis. Students assume the roles of clinical pharmacists on P&T Committees and work in teams to assess a drug for possible inclusion onto a health plans formulary.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### CL PHARM 152.11 Multidisciplinary Management of Diabetes (1 Units) Winter

Instructor(s): Philip Chan
Prerequisite(s): None.

Restrictions: None.

Activities: Lecture

Optimal diabetes care requires an interdisciplinary team care approach. Healthcare professionals from the schools of Pharmacy, Medicine, Nursing and Dentistry will be sharing their knowledge and experience about treating and managing patients with diabetes. This course is designed to increase student's knowledge and foster an interdisciplinary team approach to the treatment and management of patients with diabetes through various lectures.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 152.2 Pharmacy and Therapeutics Practicum (1.5 Units) Winter

Instructor(s): Shalini Lynch, Trang Trinh Prerequisite(s): CL PHARM 152.1

Restrictions: none
Activities: Project

This course gives students experience in writing a Pharmacy and Therapeutics monograph and presenting a medication to a mock Pharmacy and Therapeutics Committee. Students will utilize knowledge from the previous course, CP 152.1 to develop materials for the AMCP Pharmacy and Therapeutics Competition. Students will evaluate scientific evidence and prepare a cost-effective analysis. Students assume the roles of clinical pharmacists on P&T Committees.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### CL PHARM 155.70 Spanish for Pharmacists (1.5 Units) Fall, Winter, Spring

Instructor(s): Jorge Garcia Sarzosa

Prerequisite(s): None

Restrictions: Enrollment limited to 25 students; priority given to first and

second year pharmacy students.

Activities: Lecture

This course will familiarize students with the Spanish language as it pertains to the patient-pharmacist interaction. Students will receive didactic and case-based instruction in combination with group exercises to stimulate group practice of the language.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### CL PHARM 156.1 Introduction to Pharmacists Roles in Drug Development (2 Units) Fall

Instructor(s): Leslie Floren
Prerequisite(s): None

Restrictions: Maintenance of good academic standing.\r\na. Students must not have pending R2s (i.e. one summative and its second reassessment (R2)).\r\nb. If a student receives an R2 during the elective, they will be required to drop this elective course.\r\nc. If students have any concerns about their academic standing, they are instructed to contact the Instructor of Record (Dr. Floren).\r\n\r\nFaculty consent required for simultaneous enrollment in course\r\n152.1 or 152.2 (for P&T competition)

Activities: Lecture, Discussion

This two-quarter (F/W) course explores the many roles that a pharmacist in industry can take during the drug development process by having students prepare, develop, and deliver a bench-to-bedside drug presentation as part of the Value of Industry Pharmacists (VIP) case competition. Students collaborate in one of four specializations as their primary focus (clinical development; regulatory affairs; medical affairs; and marketing research/commercial strategy).

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 156.2 Introduction to Pharmacists Roles in Drug Development (2 Units) Winter

Instructor(s): Leslie Floren

Prerequisite(s): 156.1 must be completed prior to taking this course

Restrictions: Maintenance of good academic standing.\r\na. Students must not have pending R2s (i.e. one summative and its second reassessment (R2)).\r\nb. If a student receives an R2 during the elective, they will be required to drop this elective course.\r\nc. If students have any concerns about their academic standing, they are instructed to contact the Instructor of Record (Dr. Floren).\r\n\r\nFaculty consent required for simultaneous enrollment in course\r\n152.1 or 152.2 (for P&T competition)

Activities: Project, Discussion

The 2nd of this two-quarter (F/W) course series continues to explore the many roles that a pharmacist in industry can take during the drug development process by having students prepare, develop, and deliver a bench-to-bedside drug presentation as part of the Value of Industry Pharmacists (VIP) case competition. Students continue to collaborate in one of four specializations (clinical development; regulatory affairs; medical affairs; and marketing research/commercial strategy).

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### CL PHARM 159 Resiliency Medicine Certificate Training (1 Units) Fall, Winter, Spring

Instructor(s): Tram Cat
Prerequisite(s): None

Restrictions: None
Activities: Lecture

Patient and practitioner stress can limit our efforts to achieve optimal care management. This topic belongs squarely within the pharmacists' scope of practice urgently calling for an expanded approach to care. We will explore the current research and demonstrate and practice resiliency building tools including a cross-section of mind-body interactions and internal narratives (story telling). Course completion requires teaching resiliency skills and awards a certificate in resiliency training.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 162 Pain and Palliative Care (1 Units) Fall

Instructor(s): Charity Hale
Prerequisite(s): none

Restrictions: None

Activities: Lecture

The objectives of this course are to identify the most common clinical problems experienced by patients seeking palliative care including pain, nausea, vomiting, sedation, constipation, insomnia, delirium, anxiety and itching, describe treatment options for pain and symptom management taking into account underlying comoribidities and patient defined goals of therapy, and describe new developements in pharmacotherapy of pain management and palliative care.

School: Pharmacy

**Department: Clinical Pharmacy** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? Yes

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### CL PHARM 163 Provision of Pharmacy Services in a Homeless Clinic (1 Units) Fall

Instructor(s): Crystal Zhou, Deke Shelton

Prerequisite(s): none

Restrictions: none

Activities: Lecture, Clinical

This course will focus on the needs and challenges facing San Francisco's homeless population, identifying various resources available to San Francisco's homeless population and educating students to provide counseling on medications and treatment

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### CL PHARM 164 Philosophy of Drug Interactions (2 Units) Spring

Instructor(s): Sharon Youmans
Prerequisite(s): None

Restrictions: None

Activities: Lecture

Drawing on the wisdom of philosophers, scientists, and other thinkers, this course will discuss the nature and limitations of scientific truth, common reasoning errors in science, and the importance of a philosophical perspective in clinical decision making. Specific philosophical teachings ranging from the Ancient Greeks to the 21st century will be presented, with an eye to how these perspectives can be applied to the practice of pharmacy.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### CL PHARM 170 Applied Patient Care Skills I (2.5 Units) Summer

Instructor(s): Leslie Floren, Crystal Zhou

Prerequisite(s): None

Restrictions: First year PharmD student

Activities: Lecture

The APCS course trains students to care for patients by advancing skills in three areas: hands-on (e.g. immunizations), communication, and critical thinking skills. Activities incorporate self-reflection and are designed to uphold principles of DEI. CP170 introduces students to history taking, patient interviewing, chart documentation, immunizations, and aseptic technique. Students are evaluated through direct observation in skills sessions and an OSCE.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### CL PHARM 170.60 Pharmacist & Critical Care (1 Units) Fall

Instructor(s): Sue Lee

Prerequisite(s): APPE standing and basic life support certification.

Restrictions: None
Activities: Lecture

This course provides an introduction to the basic principles of critical care pharmacology and therapeutics.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 171 Applied Patient Care Skills II (1 Units) Fall

Instructor(s): Crystal Zhou
Prerequisite(s): None

Restrictions: None

Activities: Workshop

The APCS course complements the core, inquiry, and experiential education elements of the curriculum. The purpose of the APCS course is to help students further build upon their knowledge to care for patients as a whole and enhance communication skills with patients and other healthcare providers both orally and in writing. The APCS course is fully case-based and will focus on advancing 3 domains: hands-on skills, communication skills, and critical thinking skills.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### CL PHARM 172 Applied Patient Care Skills III (1 Units) Winter

Instructor(s): Jennifer Cocohoba

Prerequisite(s): None

Restrictions: 1st year PharmD Activities: Workshop, Lab skills

The APCS course trains students to care for patients by advancing skills in three areas: hands-on (e.g. immunizations), communication, and critical thinking skills. Activities incorporate self-reflection and are designed to uphold principles of DEI. CP172 trains students to conduct a respiratory physical exam, demonstrate pulmonary device use, and provide counseling on respiratory conditions. Students are evaluated through direct observation in skills sessions and an OSCE.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### CL PHARM 173 Applied Patient Care Skills IV (1 Units) Spring

Instructor(s): Crystal Zhou
Prerequisite(s): None

Restrictions: None
Activities: Workshop

The APCS course trains students to care for patients by advancing skills in three areas: hands-on (e.g. immunizations), communication, and critical thinking skills. Activities incorporate self-reflection and are designed to uphold principles of DEI. CP173 trains students to assess blood pressure, conduct motivational interviewing, and participate in case-based exercises on renal and gastrointestinal conditions. Students are evaluated through direct observation in skills sessions and an OSCE.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### CL PHARM 174 Applied Patient Care Skills V (1 Units) Summer

Instructor(s): Bani Tamraz
Prerequisite(s): None.

Restrictions: Limited to second year PharmD students

Activities: Workshop

The APCS course trains students to care for patients by advancing skills in three areas: hands-on (e.g. immunizations), communication, and critical thinking skills. Activities incorporate self-reflection and are designed to uphold principles of DEI. CP174 trains students on their ability to demonstrate blood glucose monitoring and insulin injection and counsel on endocrine-related conditions. Students are evaluated through direct observation in skills sessions and an OSCE.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 175 Applied Patient Care Skills VI (1 Units) Fall

Instructor(s): Trang Trinh
Prerequisite(s): None

Restrictions: Limited to second year PharmD students

Activities: Workshop

The APCS course trains students to care for patients by advancing skills in three areas: hands-on (e.g. immunizations), communication, and critical thinking skills. Activities incorporate self-reflection and are designed to uphold principles of DEI. CP175 trains students to counsel patients on neurological and psychiatric conditions, conduct telehealth visits, and present patients to a preceptor. Students are evaluated through direct observation in skills sessions and an OSCE.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 176 Applied Patient Care Skills VII (1 Units) Winter

Instructor(s): Katherine Gruenberg

Prerequisite(s): None

Restrictions: Limited to 2nd year PharmD students

Activities: Workshop

The APCS course trains students to care for patients by advancing skills in three areas: hands-on (e.g. immunizations), communication, and critical thinking skills. Activities incorporate self-reflection and are designed to uphold principles of DEI. CP176 trains students to conduct calculations, counsel patients, communicate with providers, and critically evaluate infectious diseases and oncology conditions. Students are evaluated through direct observation in skills sessions and an OSCE.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### CL PHARM 181 Introductory Pharmacy Practice Experience- Community A (2.5 Units) Fall

Instructor(s): Valerie Clinard
Prerequisite(s): None

Restrictions: n/a

Activities: Clinical

Through Introductory Pharmacy Practice Experiences (IPPEs), student pharmacists are expected to master foundational competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development and medical information. Each student will complete a longitudinal experience in a community pharmacy setting. The student pharmacists will become a member of the healthcare team.

School: Pharmacy

**Department:** Pharmaceutical Chemistry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# CL PHARM 182 Introductory Pharmacy Practice Experience - Community B (2.5-5 Units) Winter, Spring

Instructor(s): Valerie Clinard
Prerequisite(s): None

Restrictions: None

Activities: Clinical

Through Introductory Pharmacy Practice Experiences (IPPEs), student pharmacists are expected to master foundational competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development and medical information. Each student will complete a longitudinal experience in a community pharmacy setting. The student pharmacists will become a member of the healthcare team.

School: Pharmacy

**Department:** Pharmaceutical Chemistry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 183 Introductory Pharmacy Practice Experience - Health Systems (1.5-3.5 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Valerie Clinard Prerequisite(s): None.

Restrictions: Restricted to 2nd year PharmD students

Activities: Clinical

Through Introductory Pharmacy Practice Experiences (IPPEs), student pharmacists are expected to master foundational competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development and medical information. Each student will complete a concentrated and a longitudinal experience in a health system pharmacy setting. The student pharmacists will become a member of the healthcare team.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 190 Non-Direct Patient Care APPE Elective (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE standing

Restrictions: APPE standing

Activities: Clinical

The ambulatory patient care APPE is a core required rotation. This course is a supervised pharmacy experience where students develop and explore their roles on an interprofessional team, sharing responsibilities with other professionals for non-direct patient care outcomes. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development, and medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### CL PHARM 190A Non-Direct Patient Care APPE Elective (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE Standing

Restrictions: APPE Standing

Activities: Clinical

The ambulatory patient care APPE is a core required rotation. This course is a supervised pharmacy experience where students develop and explore their roles on an interprofessional team, sharing responsibilities with other professionals for non-direct patient care outcomes. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development, and medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### CL PHARM 190B Non-Direct Patient Care APPE Elective (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE Standing

Restrictions: APPE Standing

Activities: Clinical

The ambulatory patient care APPE is a core required rotation. This course is a supervised pharmacy experience where students develop and explore their roles on an interprofessional team, sharing responsibilities with other professionals for non-direct patient care outcomes. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development, and medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## CL PHARM 191 Direct Patient Care APPE Elective (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE standing

Restrictions: APPE standing

Activities: Clinical

A core required rotation, this course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### CL PHARM 191A Direct Patient Care APPE Elective (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE standing

Restrictions: APPE standing

Activities: Clinical

A core required rotation, this course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### CL PHARM 191B Direct Patient Care APPE Elective (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE standing

Restrictions: APPE standing

Activities: Clinical

A core required rotation, this course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)
Graduate Division cour

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# CL PHARM 192 Hospital Pharmacy Systems & Practice APPE (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Activities: Clinical

Prerequisite(s): APPE standing

Restrictions: APPE standing

A core required rotation, this course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a health system setting. Students are expected to master competencies in multiple domains including patient care, population health, interprofessional practice, practice management, professional development & medical information.

School: Pharmacy

**Department: Clinical Pharmacy** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### CL PHARM 193 Community Pharmacy Systems & Practice APPE (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE standing

Restrictions: APPE standing

Activities: Clinical

A core required rotation, this course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional (IP) healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in a community pharmacy setting. Students are expected to master competencies in multiple domains including patient care, population health, IP practice, practice management, professional development & medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### CL PHARM 194 Acute Patient Care APPE (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE standing

Restrictions: APPE standing

Activities: Clinical

A core required rotation, this course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional (IP) healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in an acute patient care setting. Students are expected to master competencies in multiple domains including patient care, population health, IP practice, practice management, professional development & medical information.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### CL PHARM 195 Ambulatory Patient Care APPE (7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): APPE standing

Restrictions: APPE standing

Activities: Clinical

A core required rotation, this course is a supervised pharmacy experience where students develop & explore their roles on an interprofessional (IP) healthcare team, sharing responsibilities with patients, caregivers, & other health professionals for drug therapy outcomes in an ambulatory care setting. Students are expected to master competencies in multiple domains including patient care, population health, IP practice, practice management, professional development & medical information.

School: Pharmacy

Unsatisfactory)

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## CL PHARM 196 Teaching Practicum (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): none

Restrictions: none

This course provides PharmD students the opportunity to develop practical teaching skills that combine observation, evaluation, and practice of teaching in a PharmD course under the supervision of the course director.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### CL PHARM 198 Supervised Study (0.5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): NONE

Restrictions: NONE

Activities: Independent Study

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# **Computational Precision Health** (COMP HLTH)

#### COMP HLTH 200A Computational Precision Health Cornerstone (3 Units) Fall

Instructor(s): Ida Sim Prerequisite(s): N/A

Restrictions: CPH first year graduate students are given priority.

Activities: Lecture, Project

Students in CPH will develop skills and expertise in both the computational sciences and health sciences. In this three-part course series, students learn to integrate core foundations of computational precision health in small multidisciplinary teams using a Problem Based Learning pedagogical approach. Students will learn core computational foundations including in machine learning and causal inference and they will obtain deep exposure to multiple clinical areas including cancer and cardiology.

School: Graduate Division

Department: Computational Precision Health Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### COMP HLTH 200B Computational Precision Health Cornerstone (3 Units) Winter

Instructor(s): Ahmed Alaa Prerequisite(s): CPH 200A

Restrictions: CPH first year graduate students are given priority

Activities: Lecture, Project

Students in CPH will develop skills and expertise in both the computational sciences and health sciences. In this three-part course series, students learn to integrate core foundations of computational precision health in small multidisciplinary teams using a Problem Based Learning pedagogical approach. Students will learn core computational foundations including in machine learning and causal inference and they will obtain deep exposure to multiple clinical areas including cancer and cardiology.

School: Graduate Division

Department: Computational Precision Health Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### COMP HLTH 200C Computational Precision Health Cornerstone (3 Units) Spring

Instructor(s): Ida Sim

Prerequisite(s): CPH 200A, CPH 200B

Restrictions: First year CPH graduate students are given priority

Activities: Lecture, Project

In part 3 of the three-part course series, students will focus on diabetes and ethical machine learning. The students will first learn about modeling chronic diseases including working with time-series data, treatment management, and sequential decision making. Along the way, we'll examine questions of equity and fairness within these questions including access to healthcare, social determinants of health, and trust in the healthcare system.

School: Graduate Division

Department: Computational Precision Health Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### COMP HLTH 201A CPH Practicum (3 Units) Fall

Instructor(s): Ida Sim

Prerequisite(s): COMP HLTH 200A, COMP HLTH 200B, COMP HLTH 200C, or permission of the Instructor.

Restrictions: Only CPH students in their 2nd year, or with instructor permisison.

Activities: Seminar, Clinical, Lab skills

CPH 201a provides the foundations for understanding and engaging with inpatient and outpatient clinical care. Student will gain deep and continuing exposure to the clinical and public health contexts in which CPH advances are to be deployed. Students will have in-depth real world exposure relevant to problem area(s) covered in the problem-based learning core, including clinical, research, and operational work in inpatient, outpatient, community health, and/or public health settings.

School: Graduate Division

Department: Computational Precision Health Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### COMP HLTH 201B CPH Practicum (3 Units) Winter

Instructor(s): Ida Sim

Prerequisite(s): COMP HLTH 200A, COMP HLTH 200B, COMP HLTH 200C,

COMP HLTH 201A, or permission of the Instructor

Restrictions: CPH students in their 2nd year, or by permission.

Activities: Seminar, Clinical, Lab skills

A 2-semester course series taken during the second year of Computational Precision Health, augmenting the Cornerstone course to provide deep and continuing exposure to the clinical and public health contexts in which CPH advances are to be deployed. Students will have in-depth real world exposure relevant to problem area(s) covered in the problem-based learning core, including clinical, research, and operational work in inpatient, outpatient, community health, and/or public health settings.

School: Graduate Division

**Department:** Computational Precision Health Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### COMP HLTH 215 Lab Rotation (2-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Instruction permission.

Restrictions: For first year graduate students in the Joint UCSF/UC Berkeley CPH PhD program.

Activities: Independent Study, Lab science

For first-year CPH graduate students, this course will provide an introduction to experimental methods and research approaches in the different areas of Computational Precision Health. Ten week laboratory rotations spread out over the fall and spring quarters, summer on a needed basis. Research is conducted under the direction of an individual faculty member.

School: Graduate Division

Department: Computational Precision Health Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

## COMP HLTH 250 Research (1-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Students working on dissertation research only

Restrictions: Restricted to Computational Precision Health students

Individual research under the supervision of a faculty member.

School: Graduate Division

Department: Computational Precision Health Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Course Grading Convention. PANP (Pass/Not Pass) of 5/0 (Satisfactory,

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### COMP HLTH 270 Computational Precision Health Seminar (3 Units) Fall, Winter

*Instructor(s):* Ida Sim, Ahmed Alaa, Adam Yala Prerequisite(s): None.

Restrictions: Enrollment is limited to students with standing in the Computational Precision Health PhD, accepted students in the Designated Emphasis in Computational Precision Health, or by consent of the instructor.

Activities: Seminar, Discussion

Computational precision health is a rapidly evolving field at the intersection of computational (computer science, data science, statistics) and health sciences (clinical medicine, population health, clinical research). The seminar consists of discussion of recent literature in CPH, guest speakers from across the programs faculty and beyond, presentations by second-year students on work completed during lab rotations, and presentations by third-year students on active dissertation research.

School: Graduate Division

Department: Computational Precision Health Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/
Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# Craniofacial Anomalies (CRAN ANOM)

## CRAN ANOM 206 Etiology, Growth Characteristic and Management of Cleft Lip (2 Units) Winter

Instructor(s): Snehlata Oberoi Prerequisite(s): None

Restrictions: MS OCS

Activities: Lecture

The etiological factors of cleft lip and palate will be discussed following the development postnatally and the effect of various surgical and non-surgical treatment approaches.

School: Graduate Division

**Department:** Oral And Craniofacial Sciences MS Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# CRAN ANOM 207 Etiology, Growth Characteristics & Management of CFA (2 Units) Spring

Instructor(s): Snehlata Oberoi
Prerequisite(s): CRAN ANOM 206

Restrictions: MS OCS

Activities: Lecture

The underlying factors that lead to various craniofacial anomalies other than cleft lip and palate will be discussed and treatment approaches will be analyzed and compared. Cleft lip and palate are covered in Craniofacial Anomalies 206.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### CRAN ANOM 419 Craniofacial Anomalies (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Snehlata Oberoi

Prerequisite(s): Enrollment in a post-professional graduate program

Restrictions: None
Activities: Clinical

Demonstration of various types of craniofacial anomalies, assessment of growth and development of abnormal and normal craniofacial structures, diagnosis and evaluation of the more common anomalies and associated impaired functions and therapeutic needs of the individual patient.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### **Data Science (DATASCI)**

### DATASCI 220 Data Science Program Seminar I (1 Units) Fall, Winter, Spring

Instructor(s): John Kornak

Prerequisite(s): BIOSTAT 202 and BIOSTAT 213

Restrictions: This course is restricted to students enrolled in the Certificate in Health Data Science and the Master's degree in Health Data Science (first year students).

Activities: Seminar, Independent Study

This seminar series covers topics in data science algorithms, ethics, biases, and applications. Students will be exposed to current topics on Data Science and Machine Learning/Biostatistics and Health Data applications, discuss issues in data science, present their work, and learn how to critically evaluate research literature. External speakers will be invited to give presentations on potential careers in health data science across the biotech industry, government and academia.

School: Graduate Division

**Department:** Health Data Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### DATASCI 221 Data Science Program Seminar II (1 Units) Fall, Winter, Spring

Instructor(s): John Kornak Prerequisite(s): DATASCI 220

Restrictions: This course is restricted to students enrolled in year 2 of the Master's in Health Data Science program.

Activities: Seminar, Independent Study

This course covers advanced topics of data science methods, ethics and biases. The focus in this second year of the seminar program will be on students presenting their research work progress from their Capstone projects. Additionally, students will also learn how to critically evaluate research literature.

School: Graduate Division

**Department:** Health Data Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

#### DATASCI 222 Data Science Capstone Project (8 Units) Fall, Winter, Spring

Instructor(s): John Kornak

Prerequisite(s): BIOSTAT 202, BIOSTAT 213, BIOSTAT 214, BIOSTAT 216,

DATASCI 220, DATASCI 225

Restrictions: This course is restricted to 2nd year students in the

Master's in Health Data Science program.

Activities: Project

Capstone project requirement for students in the Masters in Health Data Science program. Students will write a first author paper researching a problem in health data science and analyzing data using appropriate data science methodology; present their work at a scientific conference; generate a portfolio of code, analyses and data products; and write a detailed report on the background methodology and technical issues that were considered as well as implemented for the submitted publication.

School: Graduate Division

**Department:** Health Data Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

### DATASCI 223 Applied Data Science with Python (2 Units) Winter

Instructor(s): John Kornak

Prerequisite(s): Familiarity with programming concepts, including loops, variables, and functions. Ideally, hands-on experience writing and running scripts such as in: Python, R, Bash, or other programming languages.

Restrictions: This course is part of the Health Data Science Masters and Certificate Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project, Workshop

Survey of Data Science methods in Python, starting with common data science tools and processes and spending one week per topics learning to build common ML/Al solutions.

School: Graduate Division

**Department:** Health Data Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### DATASCI 224 Understanding Machine Learning: From Theory to Applications (3 Units) Spring

Instructor(s): Jean Feng Prerequisite(s): BIOSTAT 216

Restrictions: This course is part of the Health Data Science Masters and Certificate Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project

This course teaches the mathematical foundations of machine learning (ML). Each week, the course surveys a different algorithm to examine its underlying machinery, covering topics such as linear algebra, calculus, and optimization. ML algorithms range from linear models to gradient boosting and deep learning. The course also discusses newer concepts such as model fairness and ML for causal inference. Upon course completion, students should be able to learn new ML algorithms independently.

School: Graduate Division

Department: Health Data Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### DATASCI 225 Advanced Machine Learning for the Biomedical Sciences II (3 Units) Spring

Instructor(s): Gilmer Valdes

Prerequisite(s): BIOSTAT 213, BIOSTAT 216 and BIOSTAT 208. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Health Data Science Masters and Certificate Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project

This course covers the underlying formulation of machine learning algorithms. Its focus is on providing deep understanding of machine learning methodology. This is an advanced course in machine learning and its objective is to provide students with a strong foundation so that they can properly manipulate and customize black box machine learning library packages. Students will implement popular machine learning algorithms and customize them to best satisfy specific needs in medicine.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### DATASCI 300 Data Science Educational Practice (1 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Students must have previously taken the course they TA for.

Restrictions: This course is restricted to 2nd year students in the Master's in Health Data Science program.

Activities: Independent Study, Lab science

Master's in Health Data Science students are expected to act as a teaching assistant (TA). This experience involves leading a weekly small-group discussion section of 10-15 students, holding office hours and grading homework assignments and projects. This requirement will provide students with valuable teaching experience without having a significant time impact on their Capstone project work. In all cases, students will have taken the course they are asked to TA during their first year.

School: Graduate Division

**Department:** Health Data Science Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

#### **Dental Public Health (DEN PUB HL)**

#### DEN PUB HL 177 Global Oral Health Seminar (2 Units) Winter

Instructor(s): Benjamin Chaffee
Prerequisite(s): None

Restrictions: None

Activities: Lecture, Seminar

This lecture and seminar-based elective approaches selected oral health topics from a global perspective, including: socio-structural determinants of health, the global burden of oral diseases, oral health inequalities, community and population approaches to oral health promotion, and integration of oral health professionals into interdisciplinary global health partnerships. Also covered will be global oral health research methodology, ethics, and participation in global oral health research.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)
Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

## DEN PUB HL 189.02 Community Health Clinic Practice (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Melissa Tuft
Prerequisite(s): none

Restrictions: none
Activities: Clinical

Students will work under the supervision of faculty and licensed residents. Students will provide dental care while also learning and peer-teaching with faculty supervision. They will also learn to cultivate sensitivity and comfort to a multicultural and diverse patient population.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

### DEN PUB HL 200 Ethical Considerations in Clinical & Public Health Dentistry (2 Units) Winter

Instructor(s): Eni ObadanUdoh
Prerequisite(s): None

Restrictions: Enrollment in a dental postgraduate specialty program or the Oral and Craniofacial Sciences graduate program, except with the permission of the instructor.

Activities: Lecture

This is a classroom based course, using lectures, case studies and interactive learning strategies geared towards stimulating discussions on dental ethical dilemmas and arguments for both sides of the conversation. Each student must remain current by attending and participating with each weekly session and complete associated assignments within the period described. Students will meet once a week for a classroom based session with the instructor.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### DEN PUB HL 210 Introduction to Research Methods and Design (2 Units) Summer

Instructor(s): Sepideh Banava
Prerequisite(s): None

Restrictions: None

Activities: Lecture

The purpose of this course is to introduce participants to the research process with emphasis on different types of research methods and designs frequently used to study oral health.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### DEN PUB HL 215 Designing Clinical and Population Health Research (DCPHR) (1.5-2 Units) Summer

 ${\it Instructor}(s){\rm : Sepideh \ Banava, \ George \ Taylor, \ Alfa-Ibrahim \ Yansane, \ Stuart}$ 

Gansky

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Project, Workshop

Designing Clinical and Population Health Research (DCPHR) is a postgraduate course encompassing a wide range of research-related topics, including research methods and designs, study protocol development, survey design, basic statistics, and data measurement.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### DEN PUB HL 400 Dental Public Health Projects (2-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Eni ObadanUdoh, Sepideh Banava

Prerequisite(s): none

Restrictions: Postgraduate students enrolled in the UCSF Dental Public Health Residency Program.

Activities: Lecture, Project

The DPH postgraduate program is designed to provide students with adequate preparation for the board certification examination by the American Board of Dental Public Health (ABDPH). One major research project involving independent study under the supervision of the DPH program director or a member of the faculty with the approval of the program director shall be required to complete this course.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### DEN PUB HL 410 Dental Public Health Core and Contemporary Topics Seminar (2-4 Units) Fall, Winter, Spring, Summer

Instructor(s): George Taylor, Stuart Gansky, Lisa Berens, Cristin Kearns, Howard Pollick, Alfa-Ibrahim Yansane, Benjamin Chaffee, Beth Mertz, Eni ObadanUdoh, Sepideh Banava, Kristin Hoeft

Prerequisite(s): none

Restrictions: Enrollment in the Dental Public Health Postgraduate

Program.

Activities: Seminar

This course will equip DPH postgraduate students with the core and contemporary knowledge expected of a DPH specialist as outlined by the American Board of Dental Public Health (ABDPH). This course comprises:Textbook Review and Critical Summaries, Core DPH Topics Seminars, Contemporary DPH Topics Literature Review Workshops, ABDPH Certification Examination Prep Sessions, and Career Q and A Chats with DPH professionals.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **DEN PUB HL 420 Dental Public Health Field Site** Experience (2-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Lisa Berens, Susan Fisher-Owens, Sepideh Banava Prerequisite(s): No

Restrictions: Enrollment limited to postgraduate students enrolled in the UCSF Dental Public Health Residency Program.

Activities: Lecture, Fieldwork, Project, Workshop

The Dental Public Health Field Site Experience course is designed to provide postgraduate students with targeted experiential learning in a real-world public health department/community-based setting under the supervision of the DPH program director or a member of the UCSF faculty. It builds upon the core DPH knowledge gained in the classroom and equips students with practical skills to fulfill the DPH competencies outlined by the American Board of Dental Public Health (ABDPH).

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **DEN PUB HL 430 Quality Improvement in Dental Care** Settings (4.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Cristin Kearns, Eni ObadanUdoh, Susan Fisher-Owens, Jean Calvo

Prerequisite(s): None

Restrictions: Limited to students enrolled in the Dental Public Health Residency Program and others per Instructor approval.

Activities: Seminar, Project, Web work

This course introduces concepts needed to implement and evaluate quality improvement projects in a dental practice setting. Students will learn how to use the Model of Improvement developed by the Dental Quality Alliance and the basic steps for an improvement project: set an aim, select measures, develop ideas for changes, and test changes using Plan-Do-Study-Act (PDSA) cycles. Students will complete either a clinical or operational quality improvement project at a field site location.

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **DEN PUB HL 440 Introduction to Dental Public** Health (2 Units) Fall

Instructor(s): Kristin Hoeft, Eni ObadanUdoh, Lisa Berens, Cristin Kearns Prerequisite(s): N/A

Restrictions: Enrollment in a dental postgraduate specialty program (e.g., dental public health or pediatric dentistry residency program) or by permission of course director

Activities: Seminar

The purpose of this didactic course is to introduce learners to core dental public health theories, principles and approaches, including: Social Determinants of Oral Health, Oral Health Literacy, Oral Health Promotion, Patient-Provider Communication, Cultural Competency, and Oral Health Policy and Advocacy. Each student will create an individual presentation that applies the principles of the dental public health to a theoretical or actual application.\r\n

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **DEN PUB HL 475 Dental Public Health Lecture** Series (1 Units) Fall, Winter, Spring

Instructor(s): George Taylor, Howard Pollick, Eni ObadanUdoh Prerequisite(s): None

Restrictions: None

Activities: Lecture

The Dental Public Health Lecture Series covers various topics including access to and quality of dental care, community-based preventive dentistry, dental public health programs and evidence-based dental public health services. Postgraduate students will use the information to help fulfill the Dental Public Health Competencies for Dental Public Health Specialists. Specific content of each lecture will be topical and presented by invited guest lecturers from around California and the country.

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Dental Sciences (DENTALSCI)**

#### DENTALSCI 116 Oral Structure and Development (2 Units) Winter

Instructor(s): Mark Ryder
Prerequisite(s): None

Restrictions: first year dental students (D1)

Activities: Lecture

This course presents a comprehensive introduction to the development and structure of the major components of the oral cavity. Basic concepts of the gross structure, histology, ultrastructure and physiology of teeth, periodontium, and soft and hard tissue structures will be presented from a descriptive developmental perspective and from the underlying cell and molecular biological perspective. It is taught by a team of clinicians and scientists.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### DENTALSCI 117 Etiologies and Risk Factors in Dental Diseases (2 Units) Spring

Instructor(s): Mark Ryder, Peter Rechmann, Mike Sabeti

Prerequisite(s): none

Restrictions: first year dental students (D1)

Activities: Lecture

In this introductory course, the basic clinical, pathological, microbiological, and immunological features of three major dental diseases/conditions are presented: caries, periodontal diseases, and pulpal diseases. These basic concepts are presented with clinical applications that are expanded upon in subsequent didactic and clinical courses.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### DENTALSCI 125 Fundamentals of Risk Assessment, Therapy, and Prevention I (2 Units) Fall

Instructor(s): Mark Ryder, Peter Rechmann

Prerequisite(s): none

Restrictions: D2s, ID2s, ID3s

Activities: Lecture

In this course, the concepts for the diagnosis, treatment, and prevention of dental diseases and conditions are presented with emphasis on their clinical applications to management of caries and periodontal diseases. The student learns the benefits, applications, and limitations of a variety of diagnostic and treatment approaches including microbial diagnosis and treatment, local and systemic application of antimicrobials, host modulation, and genetics.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### DENTALSCI 126 Fundamentals of Risk Assessment, Therapy, and Prevention II (2 Units) Winter

Instructor(s): Mark Ryder
Prerequisite(s): none

Restrictions: D2 and DH2 students

Activities: Lecture

In this course, students will learn about the role of specific risk factors in the initiation and progression of dental diseases and the concepts of repair, remodeling, and regeneration of oral tissues and their clinical application in the treatment of periodontal diseases and tooth movement. Disease prevention strategies including plaque control, smoking cessation, and control of systemic factors that influence oral diseases and conditions will be reviewed.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### DENTALSCI 127 Orofacial Pain: Foundations for Diagnosis and Treatment (2 Units) Summer

Instructor(s): Ricardo Lugo, Jennifer Perkins

Prerequisite(s): none Restrictions: D2, ID2

Activities: Lecture

This didactic course presents a comprehensive introduction to the major categories of orofacial pain and how it impacts daily clinical practice of general dentistry. The course reviews the anatomical, physiological, pathological and pharmacological basis for pain perception and pain control, expanding upon foundational science knowledge, and translating the information to the safe and effective use of intraoral local anesthesia in dentistry.

School: Dentistry

**Department:** Oral And Maxillofacial Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### DENTALSCI 128 Oral Physiology, Orofacial Pain, and TMD (4 Units) Spring

Instructor(s): Jennifer Buchanan Prerequisite(s): BMS 116

Restrictions: D2, ID2

Activities: Lecture, Clinical, Web work

A contemporary dentist must have the background knowledge regarding the diagnostic and therapeutic approaches for temporomandibular disorders (TMD) and orofacial pain (OFP). Tooth pain is one of many conditions that may masquerade as orofacial pain. Proper diagnosis is critical, as incorrect or omitted diagnosis is a common cause of treatment failure. This discipline has evolved from traditional mechanistic dental concepts of the past to more current, evidence-based biopsychosocial model.

School: Dentistry

**Department: Oral And Maxillofacial Surgery** 

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Creding Convention: P/ND (Does (Not Does) or S/LI (Setisfactor)

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### DENTALSCI 129 Introduction to Dentistry (2.5 Units) Fall, Summer

Instructor(s): Jennifer Perkins
Prerequisite(s): None

Restrictions: Incoming DDS and IDP students.

Activities: Lecture, Workshop

This introduction to dentistry course is designed to provide new students with a comprehensive overview of the SOD Doctor of Dental Surgery (DDS) degree. The curriculum, including its various streams, opportunities for research, and philosophy of patient-centered care are all discussed. The goal is to familiarize students with the requirements necessary and the resources available to be successful students.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### DENTALSCI 181 Professionalism & Ethics in Dentistry (1 Units) Spring

Instructor(s): Dawn Stock
Prerequisite(s): None

Restrictions: DDS/IDP students

Activities: Lecture, Independent Study

This course introduces dental pre-doctoral students to ethical dilemmas they may encounter in professional practice and provides a framework for understanding how to navigate these scenarios. Students will be encouraged to think critically and discuss real examples that dental health professionals have experienced during their career. Topics are developed and prepared according to faculty-student interests.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e. pursuing Master or PhD)}$ 

### DENTALSCI 186C Exploring Student Research: JGS Spring Journal Club (1 Units) Spring

Instructor(s): Lisa Berens
Prerequisite(s): None

Restrictions: Students in the DDS and IDP programs.

Activities: Lecture, Project

Students will practice communicating their research to non-specialized audiences and prepare to embark on their summer research projects. Participants present the background, aims, and methods of their summer projects or discuss a published article relevant to their research. Presenters receive feedback and suggestions on how to optimize the clarity of their communication. Students are encouraged to invite mentors/experts in their respective fields to moderate the discussion.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/
Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **Dermatology (DERMATOL)**

#### DERMATOL 130.01 CIEx - Introduction to Dermatology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Joanna Tu, Erin Mathes, Kanade Shinkai

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will learn about the scope of dermatology practice. Students will be exposed to general adult dermatology clinics, pediatric dermatology, dermatologic surgery, dermatopathology, and the dermatology hospital consultation service.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### DERMATOL 130.06 CIEx - Advanced Dermatology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Gregory Simpson

Prerequisite(s): SJV PRIME Students must contact the Fresno F2 Coordinator for assistance in scheduling this elective @ fresnoume@ucsf.edu

Restrictions: CIEx IS FOR SJV PRIME STUDENTS ONLY IN F2 YEAR

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be exposed to dermatology practice in an ambulatory setting and in a hospital consultation service. Students will be exposed to general adult dermatology, minor procedural dermatology and dermatopathology.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### DERMATOL 140.01 Clinical Dermatology (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Joanna Tu, Erin Mathes, Kanade Shinkai

Prerequisite(s): Consent of instructor.

Restrictions: 4th year students in good academic standing

Activities: Lecture, Clinical

In this introductory clerkship, students have daily, direct patient contacts in various outpatient dermatology clinics, providing broad exposure to common dermatologic problems as well as complex, referral based dermatologic care. The experience is supplemented by didactic lectures, web-based learning modules and textbook readings, as well as presentation of cases to faculty preceptors.

School: Medicine

Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### DERMATOL 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Joanna Tu, Erin Mathes, Kanade Shinkai

Prerequisite(s): Consent of instructor.

Activities: Seminar, Clinical

Restrictions: None

Clinical clerkship in approved hospitals by special arrangement and approval of the dean and chairperson of the department.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### DERMATOL 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Joanna Tu, Erin Mathes, Kanade Shinkai Prerequisite(s): Consent of instructor

Restrictions: None

Activities: Seminar, Clinical

Clinical clerkship in approved hospitals by special arrangement and approval of the dean and chairperson of the department.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### DERMATOL 140.03A Advanced Dermatology Clerkship - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Gregory Simpson

Prerequisite(s): Medicine 110 and consent of instructor

Restrictions: n/a

Activities: Lecture, Seminar, Clinical, Independent Study

Activities of students are determined after an initial interview with the instructor. Emphasis is placed on routine outpatient and inpatient care and research methods, according to individual interest.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### DERMATOL 140.06 Phototherapy & Psoriasis (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Wilson Liao

Prerequisite(s): Basic dermatology introductory rotation recommended.

Restrictions: Limited to 1-4 students per rotation.

Activities: Lecture, Clinical, Conference, Discussion

Course 140.06 is designed to teach the basics of sophisticated, advanced therapeutic options necessary to appropriately meet the needs of patients with severe, generalized, common skin disorders such as psoriasis, eczema, and other diseases many of which are chronic and lifelong. Beyond topical therapy, these include phototherapy, including laser, oral and injectable biologic agents, and Goeckerman therapy, which is an intensive all-day, every-day regiment involving whole body application of bla

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### DERMATOL 140.11 Subinternship in Dermatology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Joanna Tu, Erin Mathes, Kanade Shinkai Prerequisite(s): MEDICINE 110, SURGERY 110, OB GYN R S 110, PEDIATRICS 110, NEUROLOGY 110, PSYCHIATRY 110, ANE PERIOP 110, FAM CM MED 110

Restrictions: Medical students applying to dermatology residencies, instructor approval.Please email course director and course coordinator to add this course to your schedule.

Activities: Lecture, Clinical, Project, Discussion

Students considering a dermatology career or seeking in-depth dermatology exposure will spend four weeks in one of several sites exploring different aspects of dermatology (examples: ZSFG hospital, Parnassus hospital/inpatient, complex outpatient medical dermatology, pediatrics). Clinical experience is supplemented by didactic lectures, webbased learning modules and a case-based presentation to peers and a faculty preceptor.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

### DERMATOL 140.76 Advanced Dermatology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Gregory Simpson

Prerequisite(s): Medicine 110; Pediatrics 110

Restrictions: none
Activities: Clinical

In this 4 week course students will be taught procedures involving routine outpatient and inpatient care and research methods on dermatological diseases.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

### DERMATOL 150.01 Research in Dermatology (3-18 Units) Fall, Winter, Spring, Summer

Instructor(s): Joanna Tu, Erin Mathes, Kanade Shinkai Prerequisite(s): NONE

Restrictions: 3rd and 4th year medical students ONLY.

Activities: Project

A research project under the direction of a member of the faculty.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### DERMATOL 170.01 Principles of Dermatology (1 Units) Fall, Winter, Spring

Instructor(s): Ryan Arakaki Prerequisite(s): None

Restrictions: None

Activities: Lecture, Clinical

Principles of Dermatology will introduce students to focused history-taking, common skin-related chief complaints, their treatments, and terminology to describe lesions. There will be an opportunity to practice acquired skills in a clinic under the guidance of a preceptor.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### DERMATOL 198 Supervised Study (1-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Joanna Tu, Erin Mathes

Prerequisite(s): Consent of instructor preceptor and approval of third- and

fourth-year coordinator.

Restrictions: Medical students only

Activities: Independent Study, Project

Focused study and directed reading under the supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine
Department: Dermatology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

## **Developmental and Stem Cell Biology** (DEV STMCEL)

### DEV STMCEL 215 Laboratory Rotation (3-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: For graduate students enrolled in the DSCB Program.

Activities: Project, Lab science

Research experience in the laboratory of DSCB faculty members. Rotations will be six weeks each (two in one term and one in another). Students can select the laboratory of any faculty member within the DSCB Graduate Program.

School: Graduate Division

Department: Developmental And Stem Cell Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

### DEV STMCEL 216 Journal Club (1 Units) Fall, Winter, Spring

Instructor(s): Dan Wagner, Todd Nystul

Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

Participation in the Developmental Biology Journal Club and Stem Cell Biology Journal Club, which cover current research publications in developmental and stem cell biology. Each student must contribute regularly and present a research paper on at least one occasion per quarter. Presentations will be evaluated by fellow students, postdocs, and faculty. Course culminates with an annual student-run Symposium.

School: Graduate Division

Department: Developmental And Stem Cell Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? Yes

### DEV STMCEL 217 Seminar Series (1 Units) Fall, Winter, Spring

Instructor(s): Brian Black Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

Seminar series covering research in developmental and stem cell biology. Each student must participate regularly and presentations will be critically reviewed by students in group discussions under supervision by faculty or guest lecturers.

School: Graduate Division

**Department:** Developmental And Stem Cell Biology Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### DEV STMCEL 225 Programming and Statistics (2 Units) Winter

Instructor(s): Todd Nystul, Dan Wagner

Prerequisite(s): none

Restrictions: Students who are not in a UCSF graduate program must get

permission from the instructor to take the course.

Activities: Lecture

An integrated overview, divided into three modules, of the essential biostatistical ideas and tools needed to work as a biomedical researcher. The first two modules include an overview of statistics theory, instruction in data organization best practices, quantitative image analysis, and data presentation. The third module will introduce Python programming and provide an introduction into analysis of large genomic datasets, including bulk RNAseq data and single cell RNAseq data.

School: Graduate Division

Department: Developmental And Stem Cell Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U
(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### DEV STMCEL 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Students must have completed prior laboratory rotations.

Restrictions: None.

Activities: Lab science

Dissertation research in a Developmental & Stem Cell Biology (DSCB) laboratory.

iaboratory.

School: Graduate Division

Graduate Division course: Yes

Department: Developmental And Stem Cell Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

### DEV STMCEL 257 Developmental and Stem Cell Biology (4 Units) Fall

Instructor(s): Seyedeh Faranak Fattahi

Prerequisite(s): Previous or concurrent enrollment in graduate level cell biology.

Restrictions: None.

Activities: Lecture, Seminar, Project

A course emphasizing the fundamental concepts of stem cell biology and development. The interrelated themes of pluripotency, differentiation, organogenesis, regeneration, patterning and morphogenesis will be approached through the lens of the organism, with emphasis on what different model systems teach us about the evolution of development. It will comprise case studies organized in coordinated mini-units, through which concepts, cellular behaviors and molecular mechanisms will be explored.

School: Graduate Division

Department: Developmental And Stem Cell Biology Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### DEV STMCEL 270 Special Topics in Developmental & Stem Cell Biology (3 Units) Spring

Instructor(s): Staff

Prerequisite(s): None. Completion of first-year curriculum in Developmental & Stem Cell Biology or other experimental biology graduate programs is helpful but not essential.

Restrictions: Biomedical Sciences graduate students and other graduate and professional students with interests in DSCB. Permission from instructor required.

Activities: Lecture, Independent Study

Course offerings will focus on literature of a current important area of Development & Stem Cell biology research. Students will be expected to read assigned papers critically before class and to present and discuss papers in class. Students will also be expected to write and/or present a brief research proposal based upon their reading.

School: Graduate Division

Department: Developmental And Stem Cell Biology Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? Yes

#### **Emergency Medicine (EMERG MED)**

### EMERG MED 130.01 CIEx - Emergency Medicine (3 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Aaron Harries, Marianne Juarez Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students rotate in the UCSF and ZSFG emergency departments evaluating and managing patients with undifferentiated complaints. Students practice procedural skills and learn to recognize, resuscitate and stabilize acutely ill patients.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EMERG MED 130.02A CIEx - Emergency Medicine - KLIC-East Bay (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Tal Ziv Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participating in the UCSF-Kaiser Longitudinal Integrated clerkship program will participate in an immersive elective in emergency medicine.\r\n

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### EMERG MED 130.02B CIEx - Emergency Medicine - KLIC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Lin

Prerequisite(s): KLIC San Francisco students.

Restrictions: Medical students in Foundations 2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participating in the UCSF-Kaiser Longitudinal Integrated clerkship program will participate in an immersive elective in emergency medicine.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### EMERG MED 130.03 CIEx - Emergency Medicine/Acute Care - PISCES (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Joseph Sullivan
Prerequisite(s): PISCES students

Restrictions: Foundations 2 Students

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The Emergency Medicine/Acute Care elective provides PISCES students exposure to patients with acute medical issues. Students spend 10 shifts in the Emergency Department and 5 additional half-days at the Screening and Acute Care Clinic.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## EMERG MED 130.05 CIEx - Emergency Medicine at Highland Hospital (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Nana Yaa Misa

Prerequisite(s): Medicine 110 Clerkship

Restrictions: 3rd year students in good academic standing

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This rotation will expose students interested in Emergency Medicine to a high-acuity, fast-paced environment in a county trauma and cardiac arrest receiving center. Students will be supported in performing initial assessments all patients.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EMERG MED 130.16 CIEx - Ultrasound Emergency Medicine - Fresno (1.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Carolyn Chooljian

Prerequisite(s): n/a

Restrictions: 1 student to rotate at a time and when R1 are rotating on

service.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will spend two weeks on the bedside ultrasound experience in the emergency department focused on emergency medicine indications. The student will work with an R1 emergency medicine resident and supervising faculty.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EMERG MED 130.29 CIEx - Emergency Medicine Apprenticeship - Fresno (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Jessie Werner, Courtenay Pettigrew
Prerequisite(s): All UCSF students must contact Linda Alvarez for
enrollment (Armelinda.Alvarez@ucsf.edu) to initiate CIEx process at
Fresno.

Restrictions: None

Students interested in exploring Emergency Medicine in a community/ academic center hybrid will be assigned to 2-3 faculty, fellows or chief residents to learn the day-to-day nuances of an emergency physician's workflow. Each student will have opportunities to evaluate undifferentiated patients with a variety of standard complaints (chest pain, abdominal pain, shortness of breath, etc.) and develop treatment plans. Each student will discuss and reason the case through with his/her mentor.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EMERG MED 140.01 Emergency Medicine Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Aaron Harries, Marianne Juarez

Prerequisite(s): Completion of clinical rotation in Medicine, Pediatrics, OB-GYN, and Surgery.

Restrictions: Fourth-year medical students only. For rotations in months of May-Dec., preference will be given to those seeking a career in Emergency Medicine.

Activities: Clinical

Students act as interns in the UCSF and ZSFG emergency departments where they evaluate and manage patients with undifferentiated emergencies/urgencies. Students practice procedural skills and learn to recognize, resuscitate, & stabilize critically ill patients. Students work clinical ED shifts in a level 1 trauma center, spend time w/ San Francisco Poison Control, & participate in weekly didactics.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

## EMERG MED 140.02A Off-Campus Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Aaron Harries

Prerequisite(s): Completion of clinical rotations in Medicine, Pediatrics, OB-GYN and Surgery. Prerequisites can be waived at the discretion of the course director.

Restrictions: Fourth year medical students only.

Activities: Seminar, Clinical

Students participating in this clerkship will act as interns evaluating and managing patients with undifferentiated medical and surgical emergencies and urgencies. Students practice procedural skills, learn to recognize, resuscitate and stabilize seriously ill patients. EM faculty provide direct supervision and bedside teaching. Students work clinical shifts in the ED, attend didactic lectures & participate in other educational endeavors unique to the site as indicated by clerkship director.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

### EMERG MED 140.02B Off-Campus Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Aaron Harries

Prerequisite(s): Completion of clinical rotations in Medicine, Pediatrics, OB-GYN and Surgery. Prerequisites can be waived at the discretion of the course director.

Restrictions: Fourth-year medical students only

Activities: Seminar, Clinical

Students participating in this clerkship will act as interns evaluating and managing patients with undifferentiated medical and surgical emergencies and urgencies. Students practice procedural skills, learn to recognize, resuscitate and stabilize seriously ill patients. EM faculty provide direct supervision and bedside teaching. Students work clinical shifts in the ED, attend didactic lectures & participate in other educational endeavors unique to the site as indicated by clerkship director.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course**: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **EMERG MED 140.11 Emergency Medical Services** and Disaster Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Jeremy Lacocque

Prerequisite(s): Completion of Medicine 110 and Surgery 110 or equivalent is required. Prior Emergency Medicine clerkship is highly recommended.

Restrictions: Third or fourth year medical student. Instructor approval one month prior to start of course required.

Activities: Lecture, Clinical, Fieldwork, Independent Study, Project

Students on the Emergency Medical Services (EMS) and Disaster Medicine Elective will be able to learn about pre-hospital care in San Francisco's busy urban EMS system. First-hand experiences with paramedics and dispatchers will teach students about critical patient management in the pre-hospital setting. Didactics will be focused on EMS structure, communication and disaster management topics. The student will be expected to design and complete a mentored EMS project during the rotation.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

#### **EMERG MED 140.30 Emergency Medicine Sub** Internship - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Courtenay Pettigrew, Scott Reichelderfer Prerequisite(s): Completion of clinical rotations in Medicine, Pediatrics, OB-GYN and Surgery. Prerequisites can be waived at the discretion of the course director.

Restrictions: Fourth year medical students only. Rotations in the months of May-Dec. Preference will be given to those seeking a career in Emergency Medicine.

Activities: Lecture, Clinical

This course provides an exciting opportunity to do a sub-internship at a busy Level One Trauma & Burn Center, acting as the primary provider for ill and injured patients presenting to the Emergency Department with a wide variety of complaints. Our population includes patients of all ages, many ethnic and cultural backgrounds, and those suffering from problems related to addiction, homelessness, and limited access to care. Students will encounter a wide variety of disease processes.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EMERG MED 140.31 Wilderness Medicine - Fresno (3 Units) Summer

Instructor(s): Michelle Storkan
Prerequisite(s): None

Restrictions: 4th year Medical Students.

Activities: Fieldwork, Conference

The course will cover major topics and practical experiences in wilderness medicine. Part of the course is lecture covering major topics important to wilderness medicine. The remainder is participation in related exercises, including backcountry wilderness medicine improvisation and experiences in search and rescue. Students must be prepared to cover some of the expenses related to backcountry activity, including camping equipment.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## EMERG MED 140.32 EM Ultrasound at UCSF Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Carolyn Chooljian, Brian Chinnock
Prerequisite(s): 3rd or 4th year medical student in good standing and
with the support of the School of Medicine. Preference will be given to
students who have completed an emergency medicine clerkship.

Restrictions: 3rd or 4th year medical students.

Activities: Clinical

The emergency medicine point of care ultrasound elective will introduce medical students to the fundamentals of bedside ultrasound. Students will have the opportunity to perform ultrasounds under the supervision of emergency physicians. Students will be expected to participate in didactic sessions and supplement their education by completing selected readings to become familiar with the six primary areas of emergency ultrasound-trauma, aorta, biliary, cardiac, pelvic and procedural applications.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

### EMERG MED 140.32A EM Ultrasound - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Carolyn Chooljian, Brian Chinnock
Prerequisite(s): 3rd or 4th year medical student in good standing and
with the support of the School of Medicine. Preference will be given to
students who have completed an emergency medicine clerkship.

Restrictions: 3rd or 4th year medical students

Activities: Clinical

The emergency medicine point of care ultrasound elective will introduce medical students to the fundamentals of bedside ultrasound. Students will have the opportunity to perform ultrasounds under the supervision of emergency physicians. Students will be expected to participate in didactic sessions and supplement their education by completing selected reading to become familiar with the six primary areas of emergency ultrasound-trauma, aorta, biliary, cardiac, pelvic and procedural applications

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# EMERG MED 140.40 Emergency Medicine Clerkship - Highland Hospital - AHS (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nana Yaa Misa

Prerequisite(s): Completion of clinical rotations in Medicine, Pediatrics, OB-GYN and Surgery. Prerequisites can be waived at the discretion of the course director.

Restrictions: Fourth year medical students only. Rotations in the months of May-Dec. Preference will be given to those seeking a career in Emergency Medicine.

Activities: Lecture, Seminar, Clinical, Project

Students evaluate medical, surgical, gynecologic and non-critical trauma patients under attending supervision. There are dedicated educational sessions for rotating medical students each week. Students are expected to attend weekly EM residency conference and monthly journal club and follow-up conference while on the rotation. Hands-on training is provided with such procedures as suturing, casting, splinting, ultrasound and airway management.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### EMERG MED 140.41 CIEx - Emergency Medicine Intro -Highland Hospital - AHS (3 Units) Fall, Winter, Spring

Instructor(s): Caitlin Bailey

Prerequisite(s): Third year standing.

Restrictions: Restricted to 3 UCSF third year medical students per 2 week block.

Activities: Lecture, Seminar, Clinical

This introductory clerkship is a two-week elective that provides a broad overview to emergency medicine. Students will gain experience evaluating and treating the acutely ill patient in a busy county urban emergency department. Students will collect and interpret data, then demonstrate the ability to synthesize a plan through oral case presentation and discussion. This hands on rotation will expose the students to various emergency medicine procedures.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EMERG MED 140.42 Emergency Medicine Ultrasound -Highland Hospital - AHS (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Arun Nagdev

Prerequisite(s): Fourth year standing.

Restrictions: Restricted to 1 UCSF fourth year medical student per block.

Activities: Clinical

Emergency Ultrasound offers the student an opportunity to integrate bedside ultrasound into their evaluation of the emergency department patient. Along with lectures, students will obtain practice in performing ultrasound exams on emergency department patients who are undergoing diagnostic evaluation. Also, students will get an opportunity to learn and utilize bedside ultrasound for procedural guidance.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EMERG MED 140.43 Clinical Toxicology & Pharmacology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Craig Smollin, Zhanna Livshits

Prerequisite(s): Medicine 110 and Fourth-year standing

Restrictions: Fourth-year standing

Activities: Clinical

In an interdisciplinary setting, students learn to assess and manage clinical problems associated with the toxic effects of drugs and poisons. Students participate in case discussion of poisonings and drug overdoses and perform follow-up telephone calls on hospitalized patients. The toxicology service also manages patients at the bedside at Zuckerberg San Francisco General hospital, and at UCSF Parnassus and Mission Bay campuses

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## EMERG MED 140.44 Emergency Medicine Ultrasound (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Sally Graglia
Prerequisite(s): None

Restrictions: Restricted to 1 UCSF fourth year medical student per block. Preference to students interested in a career in Emergency Medicine.

Activities: Clinical

This point-of-care ultrasound elective will offer students the opportunity to build a foundation of knowledge of emergency ultrasound. For various POCUS applications, students will learn the appropriate indications, how to perform each study, interpret their findings, and integrate POCUS into clinical care. Students will perform supervised diagnostic ultrasound exams and ultrasound-guided procedures on patients in the ED. Students will attend didactics and participate in POCUS literature reviews

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EMERG MED 150.01 Research in Emergency Medicine (2-16 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Aaron Harries Prerequisite(s): None.

Restrictions: None.

Activities: Fieldwork, Project

The goal of this course is to provide the student with a broad experience in emergency medicine clinical research. Students are encouraged to arrange an elective rotation with an EM faculty member to work on a research project of interest to them. The student will receive guidance and feedback on the project and the research process.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### EMERG MED 170.10 Introduction to Emergency Medicine (1 Units) Winter

Instructor(s): Rachel Chin
Prerequisite(s): None

Restrictions: Limited to School of Medicine and School of Nursing

students

Activities: Lecture, Clinical

This is an elective designed to introduce 1st and 2nd year medical students and nursing students to a range of topics that are commonly encountered in Emergency Medicine. Topics presented will include toxicology, EMS, ultrasound, chest pain, and trauma. Students will also have the opportunity to shadow physicians in the ED at SFGH. This course is problem-oriented and will focus on how to think about the chief complaint.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EMERG MED 170.12 Disaster Medicine (1 Units) Fall, Winter, Spring

Instructor(s): Aaron Harries
Prerequisite(s): None

Restrictions: Must be a student of the School of Medicine to enroll in this course.

This full day conference on Urban Disaster Preparedness will teach learners hands-on skills, systems-based approaches, and medical knowledge applicable to providing care during disaster situations. The morning will consist of five lectures from speakers representing Emergency Medicine programs across Northern California. After lunch, participants will split into break-out groups for three hands-on workshops. The day will end with a keynote lecture presented by faculty from SFGH.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### EMERG MED 170.13 Point of Care Ultrasound Elective (1 Units) Fall, Winter, Spring

Instructor(s): Sally Graglia
Prerequisite(s): None

Restrictions: Only 1st and 2nd year medical students

Activities: Lecture, Clinical

This course provides introductory training in clinician-performed, point-of-care ultrasound. Participants will learn the fundamentals of proper scanning technique and image acquisition, become familiar with normal anatomic structures, and be introduced to abnormal findings associated with specific disease states. The course relies heavily on peer-to-peer teaching and provides practical, hands-on training through live scanning of normal models.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Cooling Corporation P/ND (Does (Not Does) or S/II (Cotiofoctory)

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### EMERG MED 170.14 Scrubs Addressing the Firearm Epidemic (SAFE) (1 Units) Fall

Instructor(s): Jahan Fahimi Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course will provide students an in-depth understanding of the multifaceted nature of the United States firearm epidemic and will build the skills for healthcare professionals to engage patients in discussions about firearms. Sessions will address the firearm epidemic from a wide range of disciplinary perspectives including: epidemiology and social context; patient centered care; ethical, legal and policy implications; anatomy and physiology of firearms; and health systems improvement.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EMERG MED 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Aaron Harries

Prerequisite(s): Consent of instructor.

Restrictions: None.

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Endocrinology (ENDICRINOL)**

### ENDOCRINOL 130.16 CIEx - Pediatric Endocrinology - Fresno (1.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Renee Kinman

Prerequisite(s): Prior approval from Dr. Loren Alving and Dr. Renee

Kinman

Restrictions: must be F2/3rd yr students

Activities: Lecture, Seminar, Clinical

This is a Bridges Curriculum CIEx, which provides medical students in Foundations 2 opportunities to broaden and enhance their professional development in healthcare settings different from those of their core clerkships. Students will spend two weeks working directly with attending physicians in both inpatient/outpatient setting to learn how to act as a consultant under the supervision of a pediatric endocrinologist to understand pediatric errors of endocrinopathy.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **Epidemiology (EPIDEMIOL)**

### EPIDEMIOL 140.07 Preventive Medicine & Public Health (6-12 Units) Fall, Winter, Spring, Summer

Instructor(s): George Rutherford

Prerequisite(s): Fourth-year medical student standing.

Restrictions: None

Activities: Seminar, Clinical

This course is a practicum in public health and preventive medicine as practiced in state and local public health departments in the Bay Area and at the Centers for Disease Control and Prevention. Activities include community-based disease control, surveillance, environmental health, outbreak investigations, health education, etc., and can be tailored to students interests.

School: Medicine

**Department:** Epidemiology And Biostatistics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## EPIDEMIOL 140.08 Clerkship in Human and Veterinary Disease Ecology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): George Rutherford

Prerequisite(s): Fourth-year standing; EPIDEMIOL 140.02 or 140.07 or

similar prior experience in public health practice.

Restrictions: Must show proof of current pre-exposure rabies vaccination and/or recent protective titer.

Activities: Fieldwork, Conference

Full-time course in infectious disease ecology based in the Veterinary Public Health and Vector-borne Diseases Sections of the California Department of Health Services. One medical student and one UCD veterinary student will conduct outbreak and field investigations, help to develop public health policy statements and review surveillance data regarding zoonotic and vector-borne diseases of public health significance in California.

School: Medicine

**Department:** Epidemiology And Biostatistics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EPIDEMIOL 150.03 Designing Clinical Research (One Month) (2 Units) Fall, Summer

Instructor(s): Megie Okumura

Prerequisite(s): Possession of at least an undergraduate degree or enrollment in the UCSF Pre-Health Undergraduate Program (PUP) or SF-BUILD program. An idea for a clinical research question that has been discussed with a research mentor. Proficiency with word processing software, biomedical literature searching, and reference management software. Exceptions to prerequisites may be made with Course Director consent.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Web work, Discussion

This online course guides residents and students through the essential components for writing a clinical research protocol, developed around their own clinical research question. Students attend lectures and small group seminars as well as being given the opportunity for an optional peer review session in the last week of the course. The course will cover research questions, hypotheses, specific aims, study types, sample size estimation, power calculations, and data analysis.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### EPIDEMIOL 180.08 Violence Prevention and Trauma-Informed Care (1 Units) Fall

Instructor(s): Leigh Kimberg
Prerequisite(s): None

Restrictions: None
Activities: Lecture

Introduction to violence causes, consequences and solutions. Emphasis on health professional's role in the clinic and community. Special consideration of domestic and sexual violence, child abuse, guns, gangs, media, drugs and alcohol, and the justice system.

School: Medicine

**Department:** Epidemiology And Biostatistics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EPIDEMIOL 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty.

School: Medicine

**Department:** Epidemiology And Biostatistics

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### EPIDEMIOL 201 Responsible Conduct of Research (0.5 Units) Summer

Instructor(s): Sara Ackerman Prerequisite(s): None

Restrictions: None

Activities: Lecture

Instruction in identifying and resolving common ethical dilemmas that arise in clinical research, how research is regulated, and misconduct in research. This course meets the NIH requirement for training in research ethics.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### EPIDEMIOL 202 Designing Clinical Research (Two Month) (2 Units) Summer

Instructor(s): Mark Pletcher

Prerequisite(s): Possession of a graduate or professional doctoral degree (MD, PhD, DDS, PharmD, or international equivalent), currently enrolled in an undergraduate, graduate, or professional school, or relevant work experience. An idea for a clinical research question that has been discussed with an experienced investigator. Proficiency with word processing software, biomedical literature searching, and reference management software. Exceptions to prerequisites may be made with Course Director consent.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Discussion

A workshop for students to design their own protocol for carrying out a clinical research project. Specific topics are: the research question, study designs, study subjects, measurements, sample size, ethical considerations, presets, data management, quality control, and proposal writing.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ \, \textbf{Letter Grade, P/NP (Pass/Not Pass) or S/U}$ 

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? Yes

#### EPIDEMIOL 203 Epidemiologic Methods (4 Units) Fall

Instructor(s): Jeffrey Martin

Prerequisite(s): Designing Clinical Research (EPI 202), or equivalent experience, and Introduction to Statistical Computing in Clinical Research (BIOSTAT 212), or equivalent experience. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Discussion

Instruction in the diverse array of study designs, and their theoretical interrelatedness, available in clinical and epidemiologic research; importance of measurement; different types of measures of disease occurrence; methods to measure exposure - disease association; measures of attributable risk; effect-measure modification; approaches to identify and minimize selection, measurement and confounding bias; and conceptual motivation for more sophisticated methods (e.g., regression)

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course**: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **EPIDEMIOL 204 Clinical Epidemiology (3 Units) Fall**

Instructor(s): Michael Kohn, Thomas Newman

Prerequisite(s): Epidemiology 202. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Discussion

This is primarily a course about diagnosis and prediction. In public health and clinical practice, diagnostic tests estimate the probability of a prevalent disease, and risk prediction models evaluate the likelihood of an incident outcome. The course will cover: performance measures used for diagnostic tests and risk prediction models; design and critical appraisal of research studies to evaluate tests and risk models; and using the results of tests and risk models.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

#### **EPIDEMIOL 205 Clinical Trials (2 Units) Winter**

Instructor(s): Alison Huang, Patrick Phillips

Prerequisite(s): Designing Clinical Research (EPI 202). Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Workshop, Discussion

Instruction in experimental design options in clinical research; methods of randomization; blinding; interventions and controls; measuring outcomes and adverse effects; follow-up, compliance and post-randomization problems; ethical issues; and working with pharmaceutical companies.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EPIDEMIOL 207 Epidemiologic Methods II (3 Units) Winter

Instructor(s): June Chan, Rebecca Graff

Prerequisite(s): Epidemiologic Methods (EPI 203), or equivalent, and Biostatistical Methods for Clinical Research I (BIOSTAT 200), or equivalent experience, are required. Experience with the Stata software program is also required. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) and Epidemiology and Translational Science PhD Programs and may have space limitations. Auditing is not permitted.

Activities: Lecture, Web work, Discussion

This course is designed to provide masters and doctoral students in Epidemiology with advanced training in the theory and practice of epidemiology. It focuses on integrating study design methods with advanced causal inference approaches. The lectures focus on practical and theoretical considerations of the observational study designs. The small group discussion meetings will cover examples and applications of the concepts and analytic approaches introduced in the lectures.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### **EPIDEMIOL 210 Epidemiology of Aging (2 Units) Fall**

Instructor(s): Jacqueline Torres

Prerequisite(s): none

Restrictions: This course is appropriate for any graduate student, fellow or post doc in a health or social sciences discipline who is interested in the topic.

Activities: Lecture, Project

This course will provide an overview of issues and methods for the study of the epidemiology of aging with a focus on common chronic diseases in older populations. Students will learn how epidemiologic methods can be applied to aging populations with emphasis on translational applications. Researchers in a topic will present their work. A combination of lectures and seminar formats will be used. Students will complete a 10 page paper, present their work in class and participate in discussion.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## EPIDEMIOL 212 Publishing and Presenting Clinical Research (1-1.5 Units) Spring

Instructor(s): Vinayak Prasad
Prerequisite(s): None

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Project

This course will provide instruction in preparing manuscripts for publication in the medical literature including how to prepare title and abstract; introduction and methods; results and discussion.

School: Graduate Division

**Department: Clinical Research Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### EPIDEMIOL 213 Cost-Effectiveness Analysis in Medicine and Public Health (2 Units) Winter

Instructor(s): Tracy Lin, Elliot Marseille

Prerequisite(s): None

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture

This course builds from basic portrayal of decision problems, to more inclusive and sophisticated methods. Section activities parallel the lectures; assignments include both programmed exercises on current topics and development of student's own decision analysis and cost effectiveness analysis.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master of

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### **EPIDEMIOL 214 Systematic Reviews (1 Units) Spring**

Instructor(s): Mohsen Malekinejad

Prerequisite(s): EPIDEMIOL 202. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture

Instruction in systematic detection and summarization of primary research studies.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, \ P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EPIDEMIOL 217 Molecular & Genetics Epidemiology I (2 Units) Winter

Instructor(s): Thomas Hoffmann

Prerequisite(s): Epi 180.04 & possession of MD, PhD, DDS or PharmD or equivalent degree. Exceptions to these prerequisites may be made with the consent of the course director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture

This course introduces the concepts, principles, & use of molecular and genetic methods in epidemiologic and clinical research. Students will develop a framework for interpreting, assessing & incorporating such measures in their area of research. In particular, students will learn about: common molecular measures available; including such measures into clinical research; and interactions between genes & other exposures.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### EPIDEMIOL 218 Data Collection and Management for Clinical Research (1 Units) Summer

Instructor(s): Michael Kohn
Prerequisite(s): None.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Lab skills

Instruction in data collection and management for clinical research, including the relational database model, data collection forms, reports, and exports to statistical packages. Specific applications include REDCap and Microsoft Access with the option of exporting to Stata or R. Build SQL statements using the Access query design tool.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### EPIDEMIOL 220 Master's Seminar I (1 Units) Fall, Winter, Spring

Instructor(s): Lydia Zablotska

Prerequisite(s): Possession of MD, PhD, DDS or PharmD degree or permission of course director and Epidemiology 180.04.

Restrictions: This course is restricted to those enrolled in the Master's degree program in Clinical Research.

Activities: Seminar

This series of seminars, beginning in fall and spread over three terms, provides a forum for presenting scholar's projects and for evaluating controversies in clinical research..

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### EPIDEMIOL 221 Master's Seminar II (1 Units) Fall, Winter, Spring

Instructor(s): Jeffrey Martin, Thomas Newman, Michael Kohn Prerequisite(s): Possession of MD, PhD, DDS or PharmD degree or permission of course director and Epidemiology 180.04, 220.

Restrictions: This course is restricted to those enrolled in the Master's degree program in Clinical Research.

Activities: Seminar

These seminars provide a forum for presenting scholar's projects, and for evaluating controversies in clinical research.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### EPIDEMIOL 222 Social Determinants of Health and Health Disparities (1-2 Units) Winter

Instructor(s): Christine Dehlendorf

Prerequisite(s): EPIDEMIOL 202. Exceptions may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture

The 1 unit course will consist of the first five lectures, covering conceptual and methodological material relevant to\r\nany researcher doing work with diverse populations, including multilevel determinants of health and measurement of race/ethnicity and socioeconomic status. The 2 unit course will include the first five lectures, and an additional five lectures over 5 weeks covering more\r\nadvanced material related to the conduct of health disparities research for those specifically interested i

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **EPIDEMIOL 226 Informatics Tools for Health Disparities Research (2 Units) Winter**

Instructor(s): William Brown

Prerequisite(s): Students without coding knowledge will be guided to UCSF library learning resources.

Restrictions: None

Activities: Lecture

This course is for learners interested in accessing data sources and using informatics tools that are helpful in identifying cohorts, developing research questions, and conducting health disparities research. Topics will include finding, managing, manipulating, mining, and analyzing a variety of data types. Lectures will cover informatics research projects that address health disparities. Learners will gain access to tools and data sources, and there will be hands-on activities.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### EPIDEMIOL 230 ATCR Seminar (1 Units) Fall, Winter, Spring

Instructor(s): Lydia Zablotska

Prerequisite(s): Possession of MD, PhD, DDS or PharmD degree or permission of course director and Epidemiology 180.04.

Restrictions: Restricted to students in the Advanced Training in Clinical

Research (ATCR) Certificate Program.

Activities: Seminar

Trainees enrolled in the ATCR program present and critique each others' clinical research projects on an on-going basis throughout the year.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### EPIDEMIOL 231 Use of Electronic Health Records Data for Clinical Research (3 Units) Spring

Instructor(s): Anobel Odisho

Prerequisite(s): EPIDEMIOL 218 and BIOSTAT 212. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: This course is part of the Training in Clinical Research (TICR) Program and may have space limitations. Auditing is not permitted.

Activities: Lecture, Lab skills

This course introduces students to concepts, methods, and pitfalls related to the extraction and analysis of data from the Electronic Health Record. The course covers common EHR data structures and vocabularies, using that knowledge to inform clinical study design, and creation of patient cohorts and analytic extracts. We will evaluate both ambulatory and inpatient use cases. The course will pair lectures with labs to allow application of lecture material.

School: Graduate Division

**Department: Clinical Research Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### **EPIDEMIOL 232 Introduction to Clinical Informatics (2 Units) Summer**

Instructor(s): Alexis Beatty
Prerequisite(s): None

Restrictions: None

Activities: Lecture, Project

The course will provide an overview of clinical informatics (the application of informatics to deliver health care services), with an emphasis on clinical informatics research and maintaining scientific rigor in implementation, measurement, evaluation, and health equity. Topics will include electronic health records, clinical decision support, data standards and systems, human factors engineering, clinical informatics policy, and the application of artificial intelligence in clinical informatics

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### **EPIDEMIOL 241 Designs for Intervention Research in Real-World Settings (2 Units) Spring**

Instructor(s): Margaret Handley, Starley Shade

Prerequisite(s): Familiarity with conventional individual-level study design (e.g., observational and experimental designs).

Restrictions: This course is part of the UCSF Implementation Science Training Program and the Training in Clinical Research (TICR) Program. It may have space limitations. Auditing is not permitted. In addition, enrollment is not permitted if cross-listed course IMS 24\_ or IMS 24\_A (online version) has been taken and passed.

Activities: Lecture

Instruction in the design of studies that are alternatives to individual participant-level randomization for the evaluation of interventions in real-world settings. Both randomized (e.g., cluster-randomized and stepped-wedge randomized trials) and quasi-experimental design (e.g., pre-post and interrupted time series) will be discussed.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EPIDEMIOL 242 Program Evaluation in Clinical and Public Health Settings (2 Units) Winter

Instructor(s): Janet Myers
Prerequisite(s): None

Restrictions: Enrollment is not permitted if the cross-listed course IMS

242 or IMS 242A have been taken and passed.

Activities: Lecture, Project

This course provides training in evaluating a health program or strategy implemented in a clinical or public health setting. Scholars will develop an evaluation plan that uses logic models and evaluation frameworks (e.g., RE-AIM) to guide the systematic collection of information to understand if and how a program/implementation strategy is meeting its stated goals and objectives; improve program/implementation strategy effectiveness; and/or make decisions about future programming.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **EPIDEMIOL 243 Human Centered Design (2 Units) Fall**

Instructor(s): Meghana Gadgil

Prerequisite(s): Training or experience in public health, quality improvement, or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Enrollment is not permitted if the cross-listed course IMS 243 or EPI 243 have been taken and passed.

Activities: Lecture

Human-centered design is a discipline incorporating the human needs perspective to solve problems in public health and medicine. As an introduction to the practice, learners will follow a service design process applying methods focused on building empathy, translating needs into solution requirements, creative ideation, prototype development and testing, and planning for implementation. Broad implementation science principles and approaches will be overlaid to show intersection points.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EPIDEMIOL 245 Introduction to Implementation Science: Theory and Design (2 Units) Fall, Spring

Instructor(s): Priya Shete

Prerequisite(s): Training or experience in clinical research, public health, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: The course cannot be repeated for credit - students who take and pass IMS 245 or the online version of the course, IMS 245A, are not permitted to take this course.

Activities: Web work

This course provides a foundation for designing and evaluating strategies to accelerate the translation of evidence into practice, policy, and public health. Concepts introduced include community engagement, behavior change theory, and implementation strategy design and evaluation frameworks, and study design. In addition to didactic work, scholars are guided through the creation of a protocol aimed towards facilitating uptake of their chosen health intervention. Cross-listed as IMS 245.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **EPIDEMIOL 246 Designing Individual-Level** Implementation Strategies (2 Units) Winter

Instructor(s): Matthew Spinelli, Emilia Demarchis

Prerequisite(s): Training or experience in clinical research, public health, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: The course cannot be repeated for credit - students who take and pass Implementation Science (IMS) 246 are not permitted to take this course.

Activities: Web work

Provides training in developing interventions targeting individual health behavior change, while focusing on intervention design components that target multiple determinants: individual, interpersonal and system/ community/structural level. Students use principles of behavior change theories and implementation frameworks applied to their work to solidify course concepts. Additional assignments involve case studies analysis and online discussions with other students. Cross-listed with IMS 246.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **EPIDEMIOL 247 Designing Interventions to Change** Organizational Behavior (2 Units) Spring

Instructor(s): Laura Schmidt

Prerequisite(s): Experience working/volunteering within an organization. Ideally, this will be a healthcare organization you work in now or if not, then in the past.

Restrictions: This course is part of the UCSF Implementation Science Training Program and the Training in Clinical Research (TICR) Program. It may have space limitations. Auditing is not permitted. In addition, enrollment is not permitted if cross-listed course IMS 24X or IMS 24XA (online version) has been taken and passed.  $\r\n\$ 

Activities: Lecture, Project

This course surveys a range of translational tools at the health care system level that you can use to promote the adoption of evidence-based medicine by providers and delivery systems. Learn strategies for change in the broader context of sociological theories of organizational behavior and policy implementation. Focus your learning on translational tools that can be used by stakeholders outside of health care organizations to promote the adoption of clinical innovations within organizations.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### EPIDEMIOL 248 Community-Engaged Research (2 Units) Fall

Instructor(s): Sara Ackerman

Prerequisite(s): Training or experience in public health, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Intended for students in the MAS or ATCR programs. Space permitting, individuals not enrolled in MAS/ATCR may take this course. Enrollment is not permitted if cross-listed course IMS 248 (online version) has been taken and passed.

Activities: Web work

This course provides training in the theory and practice of collaborating with patients, members of the public, and community-based organizations in health research, intervention design and implementation. Multiple engagement strategies are introduced through readings, guest speakers, case studies, and online discussions. Participatory research methods will be applied to trainees' ongoing or planned projects in order to adapt health interventions to real-world contexts. Cross-listed as IMS 248.

School: Graduate Division

Repeat course for credit? No

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U
(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes

### EPIDEMIOL 249 Translating Evidence Into Policy (2 Units) Spring

Instructor(s): Beth Griffiths

Prerequisite(s): The course is focused on domestic (US) health policy and requires a basic understanding of government organizational structures (executive, legislative and judicial branches).

Restrictions: This course is part of the UCSF Implementation Science Training Program and the Training in Clinical Research (TICR) Program. It may have space limitations. Auditing is not permitted. In addition, enrollment is not permitted if cross-listed course IMS 249 or IMS 249A (online version) has been taken and passed.

Activities: Lecture, Project

This course will focus on the policy process and strategies for collecting and disseminating research findings to inform and influence that process. The course will be taught through a series of videos and guided readings delivered by faculty with extensive experience at the federal, state, and local level in health care policy.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### EPIDEMIOL 252A Cancer Epidemiology (2 Units) Winter

Instructor(s): Robert Hiatt, Lydia Zablotska, George Sawaya, Thea Tlsty, Erin Van Blarigan, Scarlett Gomez, Karla Kerlikowske, Rebecca Graff Prerequisite(s): EPI 203 (Epidemiologic Methods I) or equivalent. Students are also encouraged to take EPI 217 or Berkeley course 256 Genetic Epidemiology (or equivalent experience).

Restrictions: None.
Activities: Seminar

This course is intended for students who already have acquired, or concurrently are acquiring a basic understanding of the principles and methods of epidemiology, and who now wish to apply this knowledge to the study of the epidemiology of neoplastic diseases. Enrollment will be limited to 15 students. This is a 2 part course that extends over to the spring quarter, beginning with EPI 252A, followed by EPI 252B.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory), In Progress (IP, SP/UP) grading allowed Graduate Division course: Yes

Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

### EPIDEMIOL 252B Cancer Epidemiology (1 Units) Spring

Instructor(s): Robert Hiatt, George Sawaya, Thea Tlsty, Lydia Zablotska, Karla Kerlikowske, Scarlett Gomez, Erin Van Blarigan, Rebecca Graff Prerequisite(s): EPIDEMIOL 252A.

Restrictions: Student must have been enrolled EPI 252A

Activities: Seminar

This course is intended for students who already have acquired, or concurrently are acquiring a basic understanding of the principles and methods of epidemiology, and who now wish to apply this knowledge to the study of the epidemiology of neoplastic diseases. Enrollment will be limited to 15 students. This is a 2-part course that extends over to the spring quarter, beginning with EPI 252A, followed by EPI 252B.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U
(Satisfactory/Unsatisfactory)
Graduate Division course: Yes

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

### EPIDEMIOL 253 Methods in Infectious Disease Epidemiology (2-3 Units) Spring

Instructor(s): Ali Mirzazadeh, George Rutherford
Prerequisite(s): Students will need to have an understanding of
basic epidemiological and statistical methods as covered in Epi203
(Epidemiologic Methods I) and Bio200 (Biostatistical Methods for
Clinical Research I). Familiarity with an analysis software package is nonessential but encouraged in particular in those who choose "analysis data
of an infectious disease" as their project.

Restrictions: None

Activities: Lecture, Seminar, Project

This course will focus on the epidemiological methods used in infectious disease, and strategies for their control or elimination. The faculty-facilitated seminars will focus on key readings in the field and will be led by students. The course covers concepts and methods to assess transmissions, pharmaceutical and non-pharmaceutical control measures, outbreak investigation, and one health approach to fight health issues at the human-animal-environment interface, including zoonotic diseases.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### EPIDEMIOL 258A NIH F & K Grant Writing Workshop (Online) (3 Units) Winter

Instructor(s): Erin Van Blarigan, Amy Conroy

Prerequisite(s): None

Restrictions: This course is designed for doctoral level students or higher. A brief application will be available at the course website.

Activities: Lecture, Independent Study

This course is designed to provide doctoral students and fellows with training on the preparation of a NIH Fellowship or Career Development Award application in a structured environment. The course will cover funding mechanisms, NIH submission and review procedures, charting out a timeline for writing and assembling all grant components, and writing each component of the grant application.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U
(Satisfactory/Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### EPIDEMIOL 258B NIH F & K Grant Writing Workshop (3 Units) Spring

Instructor(s): Erin Van Blarigan

Prerequisite(s): This course is designed for Master's level students.

Additional learners can enroll with instructor approval.

Restrictions: Designed for TICR program students

Activities: Lecture, Project, Workshop

This course is designed to provide training on the preparation of a NIH Fellowship or Career Development Award application in a structured environment. The course will cover funding mechanisms, NIH submission and review procedures, charting out a timeline for writing and assembling all grant components, and writing each component of the grant application.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EPIDEMIOL 263 Demographic Methods for Health (1.5 Units) Fall

Instructor(s): Nadia Diamond-Smith

Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course will cover basic demographic theory and methods, including population dynamics, fertility, mortality, migration, urbanization, aging, and family structure. The emphasis will be on how and why understanding these factors is important for public health practitioners. This will be accomplished through case studies on public health topics and how understanding certain demographic phenomenon is essential for understanding the disease burden.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### EPIDEMIOL 265 Research Methods in Chronic Disease Epidemiology (2-3 Units) Spring

Instructor(s): Catie Oldenburg

Prerequisite(s): EPIDEMIOL 203\r\nBIOSTAT 200

Restrictions: This course assumes a basic foundation in epidemiology and quantitative research methods. Concurrent enrollment or previous completion of a regression course is strongly recommended.

Activities: Lecture, Project

This course will focus on clearly articulating and testing research hypotheses related to the determinants and consequences of chronic conditions. Each session will introduce specific methodological concepts for epidemiologic studies, organized around an illustrative applied research paper. The course will emphasize causal inference from observational data. Most examples will be drawn from literature on social and lifecourse determinants of dementia, stroke, and cardiometabolic disease.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **EPIDEMIOL 266 Mathematical Modeling of Infectious** Diseases (1.5 Units) Spring

Instructor(s): Travis Porco

Prerequisite(s): Introductory probability or statistics. Exceptions to these prerequisites may be made with the consent of the Course Director, space permitting.

Restrictions: None Activities: Lecture

Introduction to Concepts of mathematical modeling of infectious diseases; topics include branching processes and the basic reproduction number, dynamical systems, and methods for data fitting Including MCMC.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### **EPIDEMIOL 267 Qualitative and Mixed Methods Research (2 Units) Winter**

Instructor(s): Sara Ackerman, Kim Koester

Prerequisite(s): Training or experience in public health, epidemiology, clinical research, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Intended for students in the MAS or ATCR programs. Space permitting, individuals not enrolled in MAS/ATCR may take this course. Enrollment is not permitted if IMS 250 (online version) has been taken and passed.

Activities: Seminar, Project

This course provides training in the use of qualitative and mixed methods in clinical, health services and implementation research. Through readings, lectures, case studies, and online discussions, students will gain basic skills in conducting interviews, focus groups, and observations, qualitative and mixed methods data analysis, and innovative approaches such as rapid ethnography and joint display of qualitative and quantitative findings.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **EPIDEMIOL 268 Econometric Methods for Causal** Inference (2-3 Units) Spring

Instructor(s): Justin White

Prerequisite(s): Biostat 200, Biostat 208, Epi 203, or equivalent experience. Experience with Stata. Open to students from any department or program.

Restrictions: None Activities: Lecture

Epidemiologists and clinical researchers are increasingly seeking to estimate the causal effects of health-related policies, programs, and interventions. Economists have long had similar interests, and have developed and refined methods to estimate causal relationships. Examples include difference-in-differences, instrumental variables, and regression discontinuity. This course introduces this set of econometric tools and research designs in the context of health-related questions.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **EPIDEMIOL 269 Equity Issues in Reproductive** Health (2 Units) Winter

Instructor(s): Patience Afulani, Nadia Diamond-Smith Prerequisite(s): Knowledge of introductory biostatistics, basic understanding of study design

Restrictions: None

Activities: Lecture, Independent Study

This is a graduate-level course focused on Reproductive, Maternal, Neonatal and Child Health (RMNCH). The course will cover foundational RMNCH concepts, including providing an overview of selected RMNCH issues in the US and globally, highlighting best practices and innovations in measurement in RMNCH, examining ways in which social determinants influence RMNCH and produce health inequities and evaluating approaches to meet the needs of vulnerable populations.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **EPIDEMIOL 270 Doctoral Seminar in Epidemiology and** Translational Science (1-2 Units) Fall, Winter, Spring

Instructor(s): Catie Oldenburg, Dave Glidden

Prerequisite(s): None

Restrictions: This seminar is only offered to graduate students in Epidemiology and Translational Science.

Activities: Seminar

This seminar is for doctoral students enrolled in the PhD Program in Epidemiology and Translational Science. The seminar is a forum for instruction and discussion of scholarly topics related to advanced study of epidemiology and its applications as well as works in progress by the graduate students.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### **EPIDEMIOL 296 Independent Study in Epidemiology and** Translational Science (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): EPI 203 - Epidemiologic Methods\r\nEPI 207 -Epidemiologic Methods II\r\n\r\nBiostat 200 - Biostatistical Methods\r \nBiostat 208 - Biostatistical Methods II\r\nBiostat 209 - Biostatistical Methods III

Restrictions: Prerequisites or equivalent training approved by the instructor is required.

Activities: Independent Study

Independent Study in Epidemiology and Translational Science provides opportunities for pre-doctoral students to work with individual faculty on topics tailored to the special interest of the student with individualized readings, learning materials and experiential learning.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

**Graduate Division course:** Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## EPIDEMIOL 297 Research Rotation in Epidemiology & Translational Science (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): EPI 203 - Epidemiologic Methods\r\nEPI 207 - Epidemiologic Methods II\r\n\r\nBiostat 200 - Biostatistical Methods\r\nBiostat 208 - Biostatistical Methods II\r\nBiostat 209 - Biostatistical Methods III

Restrictions: Prerequisites or equivalent training approved by the instructor are required.

Activities: Project

Two Research (Team) Rotations of one quarter each are required for the PhD degree in Epidemiology and Translational Science. The purpose is to expose the student to every day working environments for epidemiologists to expand their view of the scope of the discipline. The content of a Rotation can be primarily analytic working with an existing dataset or nonanalytic working on the development and implementation of a research project.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EPIDEMIOL 299 MAS Dissertation Requirements Only (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Alexis Beatty, Elaine Ku

Prerequisite(s): Advancement to candidacy in the MAS in Clinical Research program and the permission of the graduate program advisor.

Restrictions: For students in the MAS in Clinical Research program only.

For graduate students in the MAS in Clinical Research Program who have successfully completed all required coursework and are in the process of writing their three products required for graduation.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

is this an interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### EPIDEMIOL 299D Dissertation Research (8 Units) Fall, Winter, Spring, Summer

Instructor(s): Catie Oldenburg

Prerequisite(s): Must have passed PhD Qualifying Examination

Restrictions: Must have passed PhD Qualifying Examination

Activities: Project

EPI 299D Dissertation Research is required of students working on their dissertations following passing their qualifying examinations. The subject matter depends on the topic of the dissertation.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### EPIDEMIOL 300 Clinical Research Educational Practice (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Elaine Ku

Prerequisite(s): Students must have taken the assigned course previously.

Restrictions: This course is part of the Master's in Clinical and Epidemiological Research program degree requirements.

Activities: Lab science, Discussion

Students in the Masters in Clinical and Epidemiological Research program are required to gain instructional experience (typically in their second year) in one course within the TICR Program. This experience may involve leading a weekly small-group discussion section (10-12 students), holding office hours for students and grading homework assignments and projects. Satisfactory completion of this requirement is required for advancement to degree completion.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Equity in Brain Health (EQBRAIHLTH)**

### EQBRAIHLTH 201 Introduction to Dementia and Health Care (3 Units) Fall

*Instructor(s):* Howie Rosen Prerequisite(s): None.

Restrictions: Enrollment under the Equity in Brain Health Program at the Global Brain Health Institute (GBHI)

Activities: Seminar

This course reviews foundational topics that are crucial for clinicals and other content modules, including a deeper understanding of the economic, epidemiological and social frameworks that impact equity and ethical issues in this field.

School: Graduate Division

Department: Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### EQBRAIHLTH 202 Alzheimer's Disease (2 Units) Fall

Instructor(s): Howie Rosen

Prerequisite(s): Completion of 201 - Introduction to Dementia and Health Care course.

Restrictions: Enrollment under the Equity in Brain Health Program at the Global Brain Health Institute (GBHI)

Activities: Seminar

This course covers clinical topics, including an in-depth review of Alzheimer's Disease (AD), and its care, management, and treatment, and a review of Stroke and its connection to Dementia. Other sessions focus on equitable practices for integrating research, care, and treatment for families and caretakers. In addition, costs and benefits of treatments and care are reviewed from a Health Economics perspective.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **EQBRAIHLTH 210 Atypical Dementias (2 Units) Winter**

Instructor(s): Howie Rosen

Prerequisite(s): Completion of 202 - Alzheimer's Disease course

Restrictions: Enrollment under the Equity in Brain Health Program at the Global Brain Health Institute (GBHI)

Activities: Seminar

This course highlights non-Alzheimer (non-AD) dementias, including frontotemporal dementia (FTD), frontotemporal lobar degeneration (FTLD), Parkinson's disease (PD) and Lewy body dementia (LBD), as well as HIV and its impacts on the brain while also diving more deeply into ethical, economic and creative ideas and practices surrounding dementia treatment, management and care.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### EQBRAIHLTH 211 Brain Wellness and Modifiable Risk Factors (2 Units) Winter

Instructor(s): Howie Rosen

Prerequisite(s): Completion of 210 - Atypical Dementias

Restrictions: Enrollment under the Equity in Brain Health Program at the Global Brain Health Institute (GBHI)

Activities: Seminar

This course brings together the research on how to maintain brain wellness. Topics include neuroplasticity and cognitive reserve as well as modifiable risk factors and prevention. Deeper examinations of other content modules offer integrated frameworks for how to support brain health in a way that eliminates inequitable outcomes.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EQBRAIHLTH 220 Brain Health Policy (2.5 Units) Spring

Instructor(s): Howie Rosen

Prerequisite(s): Completion of 211 - Brain Wellness and Modifiable Risk

**Factors** 

Restrictions: Enrollment under the Equity in Brain Health Program at the

Global Brain Health Institute (GBHI)

Activities: Seminar

This course explores the real-world nature of policymaking using policy analysis and strategy tools. Fellows select a "ripe" policy issue to work with and continue analyzing how their policy issue would benefit from adapting and using strategic tools from the field while incorporating regional considerations.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/$ 

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### EQBRAIHLTH 230.1 Professional Development for Leadership and Communication I (2 Units) Fall

Instructor(s): Howie Rosen

Prerequisite(s): Completion of 220 - Brain Health Policy

Restrictions: Enrollment under the Equity in Brain Health Program at the Global Brain Health Institute (GBHI)

Activities: Discussion

This course covers two full modules: Skills, where submitted works are critically analyzed within guiding frameworks in order to develop one's thinking, writing, and presentation abilities; and Leadership, where topics that support improved self-awareness, inclusion, and communication skills are reviewed to promote more effective leadership.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EQBRAIHLTH 230.2 Professional Development for Leadership and Communication II (1 Units) Winter

Instructor(s): Howie Rosen

Prerequisite(s): Completion of 220 - Brain Health Policy & 230.1 - Professional Development for Leadership and Communication

Restrictions: Enrollment under the Equity in Brain Health Program at the

Global Brain Health Institute (GBHI)

Activities: Discussion

This course covers two full modules: Skills, where submitted works are critically analyzed within guiding frameworks in order to develop one's thinking, writing and presentation abilities; and Leadership, where topics that support improved self-awareness, inclusion and communication skills are reviewed to promote more effective leadership.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EQBRAIHLTH 240 Selected Topics (2.5 Units) Summer

*Instructor(s):* Howie Rosen Prerequisite(s): None.

Restrictions: Enrollment under the Equity in Brain Health Program at the Global Brain Health Institute (GBHI)

Activities: Seminar, Clinical

A series of 6-8 courses and workshops are offered. Topics are developed to extend the learning from earlier segments of the curriculum for learners that wish to dig deeper into a particular content area. Fellows must choose at least three (though many fellows may take more or all of these).

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### EQBRAIHLTH 250.1 Independent Study - Project Development I (1 Units) Spring

Instructor(s): Howie Rosen
Prerequisite(s): None

Restrictions: Enrollment under the Equity in Brain Health Program at the

Global Brain Health Institute (GBHI)

Activities: Independent Study

This course involves the development of a grant proposal for a hypothetical project. Required components of the project include review of prior research gaps and opportunities, proposed aims and justifications for those aims, methods and evaluation plans. Projects are developed in collaboration with program faculty, experts from the learner's home region, and other colleagues, and experts as appropriate.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### EQBRAIHLTH 250.2 Independent Study - Project Development II (0.5 Units) Summer

Instructor(s): Howie Rosen

Prerequisite(s): Completion of 250.1 - Independent Study - Project

Development

Restrictions: Enrollment under the Equity in Brain Health Program at the

Global Brain Health Institute (GBHI)

Activities: Independent Study

The continuation and final development of the grant proposal for a hypothetical project that is submitted to the course director for analysis, review, and grading. This course allows for all feedback from mentors, and faculty experts to be fully integrated into a well-developed formal project proposal.

School: Graduate Division

**Department:** Equity in Brain Health Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# Family and Community Medicine (FAM CM MED)

### FAM CM MED 110 FCM Core Clerkship (0.5-2.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Erica Brode, Betsy Wan

Prerequisite(s): Successful completion of a pre-core clerkship medical student curriculum (Essential Core, Foundations 1 or Joint Medical Program)

Restrictions: Medical student
Activities: Independent Study

A required core clerkship in Family Medicine where students learn to provide primary care in an outpatient setting. Under supervision and with instruction, students perform ambulatory visits for chronic care, acute care and preventive care.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### FAM CM MED 130.01 CIEx - Outpatient Family Medicine Apprenticeship (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Margo Vener

Prerequisite(s): Students must have completed at least 4 sessions of FCM 110 and either OB/Gyn 110 or Med 110 clerkship.\r\n Students must have a strong interest in primary care.

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. San Francisco Free Clinic provides free primary care and urgent care for uninsured individuals in San Francisco. Students will work with family physicians and general internists to provide ambulatory care to primarily adult patients.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### FAM CM MED 130.02 CIEx - Family Medicine with Maternity Care (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Melissa Nothnagle

Prerequisite(s): Student must be in good academic standing and have an interest in a family and community medicine experience.

Restrictions: Foundations 2 students

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. In this course, students will engage in family practice with a specific emphasis on maternity care.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 130.03 CIEx - Women's Health and HIV Care in Family Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lealah Pollock

Prerequisite(s): 1. Strong career interest in Family Medicine\r\n2. Must have completed at least 4 FCM 110 clinic sessions\r\n

**Restrictions: Medical Students in Foundations 2** 

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will gain experience in the family medicine approach to HIV care and prevention among women. Students will work in the Womens HIV Program at Parnassus, the Family HIV Clinic at ZSFG, and the National Clinical Consultation Call Center.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 130.23 CIEx- Palliative Care - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Dumindra Gurusinghe

Prerequisite(s): All UCSF students must contact Linda Alvarez for enrollment (Armelinda.Alvarez@ucsf.edu) to initiate CIEx process at Fresno.

Restrictions: must be 3rd year students.

Activities: Lecture, Clinical

This is a Bridges Curriculum CIEx, which provides medical students in Foundation 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will spend 2 weeks on the inpatient palliative care service at CRMC working with our multidisciplinary team, which includes a supervising physician, a Hospice and Palliative Medicine fellow, nurse, social worker, and Chaplain. Half day in our outpatient CCI, Clovis.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### FAM CM MED 140.04A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Michael Potter

Prerequisite(s): Completed core clerkships. Written objectives with specific plans. Consent of instructor. Third or fourth year medical student tanding.

Restrictions: Only medical students. Students must work with a family physician as primary preceptor.

Activities: Clinical

Students will work with a family medicine physician in various sites which could include an urban or rural private practice, community based clinic, or the Indian Health Service. Experiences will focus on students area of interest such as community oriented primary care, complementary & alternative medicine or maternal and child health.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### FAM CM MED 140.04B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Michael Potter

Prerequisite(s): Completed core clerkships. Written objectives with specific plans. Consent of instructor. Third or fourth year medical student tanding.

Restrictions: Only medical students. Students must work with a family physician as primary preceptor.

Activities: Clinical

Students will work with a family medicine physician in various sites which could include an urban or rural private practice, community based clinic, or the Indian Health Service. Experiences will focus on students area of interest such as community oriented primary care, complementary & alternative medicine or maternal and child health.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### FAM CM MED 140.10 Advocacy Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Mark Renneker, Eric Jamison

Prerequisite(s): None

Restrictions: Enrollment is restricted to 4th year medical students (but on special request, could include a 3rd year student, including from the UC Berkeley/UCSF Joint Medical Program)

Activities: Clinical

A 2 week block elective for medical students to gain family medicinebased advocacy experience and clinical research skills. This curriculum will better equip them to help patients and families dealing with complex and life-threatening conditions who are seeking optimum care, or care that falls outside what is provided by standard medical practices.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# FAM CM MED 140.16 Care of Adolescents & Adults with Developmental Disabilities (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Clarissa Kripke

Prerequisite(s): Successful completion of 3rd year predoctoral medical coursework.

Restrictions: UCSF Students only; 4th year predoctoral medical students.

Activities: Clinical

UCSF Students will be mentored by a clinician who provides care to medically fragile patients with developmental disabilities in the community. Services will be delivered in a number of settings, including group homes, clinics, and community sites. Students will partner with a community agency and self advocates to complete a health promotion or resource development project. Participants will develop skills in working with teams. Activities and placements will be designed based on interests.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

#### FAM CM MED 140.17 PRIME-US Capstone Course (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Monica Hahn, Heather Hervey-Jumper

Prerequisite(s): None

Restrictions: This course is restricted to students in their final year of the

PRIME-US program.

Activities: Lecture, Seminar, Project

Students taking this course will review the core principles and practices of underserved care, acquire new leadership skills, and work together on community-based projects. As the culminating curriculum for PRIME-US, this course provides students with an opportunity to reconnect with their peers, renew their commitment to underserved care, and build a foundation for future leadership roles.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 140.30 Advanced Ambulatory Care Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Margo Vener

Prerequisite(s): FAM CM MED 110\r\nPEDIATRICS 110\r\nOB GYN R S 110

Restrictions: Must have basic skills in providing primary care and preventive care in an outpatient setting.

Activities: Clinical

In this advanced elective in Family Medicine, students function as interns and assume a high level of responsibility in providing primary, preventive and acute care in an outpatient setting.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 140.35 Advanced Ambulatory Care Clerkship - SF Free Clinic (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Margo Vener

Prerequisite(s): 1) Med 110\r\n2) ObGyn 110\r\n3) 6 months minimum of

longitudinal FCM 110

**Restrictions: None** 

Activities: Clinical

In this advanced elective in Family Medicine, students assume a high level of responsibility in providing primary, preventive and acute care in an outpatient setting at San Francisco Free Clinic.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 140.40 Advanced Inpatient Clerkship (6) Units) Fall, Winter, Spring, Summer

Instructor(s): Margaret Stafford

Prerequisite(s): Medicine 110. For students who have done a longitudinal third-year curriculum (e.g. PISCES, KLIC), we strongly recommend completing an inpatient consult month (1B) before starting FCM 140.40. If you have specific questions about your level of preparation for this rotation, please contact Dr Margo Vener.

Restrictions: To enroll in this course, you must also have contacted Dr Vener and let her know that you are considering Family Medicine residency.

Activities: Clinical

The Family Medicine Inpatient Service at SFGH employs a family medicine approach to the care of hospitalized adult patients with diverse medical problems. Students function as members of the multidisciplinary inpatient team at a junior intern level. Students review their patients with the attending daily. Teaching rounds are held daily and include weekly behavioral science and radiology rounds in addition to interactive small group teaching on core inpatient medicine topics.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No

Repeat course for credit? No

#### FAM CM MED 140.45 Integrative Approaches to End-of-Life Care (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Shelley Adler Prerequisite(s): None

Restrictions: This course is intended for 4th year medical students, but is open to any student at UCSF. Please contact course coordinator for details.

Activities: Clinical, Project

This elective takes an integrative and interprofessional approach to relationship-centered EOL care, cross-cultural understandings of death, and the spiritual dimension of dying. Highlights include didactic and experiential core seminars, presentations by EOL care providers, hospice visits, and the exploration of personal understandings and transformational opportunities of EOL care through the discussion of literature, writing, and reflection. (ENROLLMENT MINIMUM: 15 STUDENTS)

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 140.50 Advanced Ambulatory Care Clerkship - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Juan Ruvalcaba Prerequisite(s): Third Year FM Course

Restrictions: none Activities: Clinical

In this advanced ambulatory care elective, students work alongside UCSF-Fresno FCM faculty and residents in a busy primary care clinic. They are expected to function at the level of an intern while providing acute, chronic, and preventative care.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 140.53 Inpatient Medicine/Family Medicine - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Sireesha Reddy

Prerequisite(s): Medicine 110, FCM 110, fourth-year standing

Restrictions: none Activities: Clinical

In this inpatient rotation, students function as junior interns on the teaching service at Community Regional Medical Center in Downtown Fresno. Students will work alongside UCSF-Fresno Family & Community Medicine residents and faculty. This rotation includes taking call with the residents, attending patient rounds, and attending weekly didactic sessions.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 140.55 Palliative Care Medicine -Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Dumindra Gurusinghe

Prerequisite(s): n/a

Restrictions: Must be a 4th year medical student.

Activities: Lecture, Clinical

This 4 week elective will focus on the care of patients with serious, chronic and terminal illness emphasizing symptom management, communication, ethical issues and psychosocial support of patients and their families. Students will spend time with the interdisciplinary palliative care team made up of an attending physician, nurse specialist, social worker, and chaplain.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### FAM CM MED 140.55A Palliative Care Experience - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Dumindra Gurusinghe

Prerequisite(s): n/a

Restrictions: Must be a 4th year medical student.

Activities: Lecture, Clinical

This 2 week elective will focus on the care of patients with serious, chronic and terminal illness emphasizing symptom management, communication, ethical issues and psychosocial support of patients and their families. Students will spend time with the interdisciplinary palliative care team made up of an attending physician, nurse specialist, social worker, and chaplain.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# FAM CM MED 140.70 Community Medicine in International Perspective (6-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Norman Hearst, Margo Vener

Prerequisite(s): None

Restrictions: None

Activities: Fieldwork

A 4-6 week elective involving placement at a supervised clinical or public health training and/or service site abroad.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## FAM CM MED 140.76 Women's Health and HIV Care in Family Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lealah Pollock, Margo Vener Prerequisite(s): FAM CM MED 110

Restrictions: 4th year UCSF medical students only

Activities: Clinical

This course will provide an opportunity for 4th year medical students to work with family physicians and gain experience in providing health care for women, care for patients with HIV, and care for families where one person or more has HIV.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 150.01 Research in Family Medicine (2-16 Units) Fall, Winter, Spring, Summer

Instructor(s): Margo Vener

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Fieldwork, Project

Clinical epidemiology, health services, or behavioral science research approaches are applied in the study of selected areas in family medicine or community health.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### FAM CM MED 160.04 Trans and Gender Expansive Health (1 Units) Winter

Instructor(s): Madeline Deutsch, Abby Cobb-Walch

Prerequisite(s): None

Restrictions: None
Activities: Lecture

This course introduces students to health challenges faced by transgender patients. With an emphasis on primary care considerations, lectures will discuss the components of transgender-inclusive healthcare. Through lecture, discussion, and a patient panel, student will explore: demographics, health disparities, primary care protocols, history of transgender medicine, surgical options, primary care for transgender youth, and critical research questions in transgender health.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

# FAM CM MED 170.01A Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Margo Vener

Prerequisite(s): Consent of instructor.

Restrictions: None
Activities: Lecture

Explores in systematic (lecture/readings/discussion) format new issues in health care or special content areas related to Family and Community health. Topics are developed and prepared according to faculty-student interests.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### FAM CM MED 170.01B Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Margo Vener

Prerequisite(s): Consent of instructor.

Restrictions: None
Activities: Lecture

Explores in systematic (lecture/readings/discussion) format new issues in health care or special content areas related to family and community health. Topics are developed and prepared according to faculty-student interests.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# FAM CM MED 170.01C Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Margo Vener

Prerequisite(s): Consent of instructor.

Restrictions: None
Activities: Lecture

Explores in systematic (lecture/readings/discussion) format new issues in health care or special content areas related to family and community health. Topics are developed and prepared according to faculty-student interests.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# FAM CM MED 170.01D Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Margo Vener

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Lecture

Explores in systematic (lecture/readings/discussion) format new issues in health care or special content areas related to family and community health. Topics are developed and prepared according to faculty-student interests.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 170.01E Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Margo Vener
Prerequisite(s): None

Restrictions: None

Activities: Lecture

Explores in systematic (lecture/readings/discussion) format new issues in health care or special content areas related to family and community health. Topics are developed and prepared according to faculty-student interests.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### FAM CM MED 170.02 Compassionate Care: The Art of Healing Communication (1 Units) Fall

Instructor(s): Shieva Khayam-Bashi, Thomas McNalley Prerequisite(s): None

Restrictions: First & second year students in all Schools are welcome: Medicine, Nursing, Pharmacy, Dentistry, and Physical Therapy

Activities: Lecture

Guest speakers will share lectures, stories, clinical pearls, and personal experiences to promote discussions for deeper understanding & skill-building in communication, engagement, compassion and connection with patients. Topics may include: empathic listening; tips for communicating with compassion; using the BATHE technique in challenging dialogues; patient stories as narrative experiences; medical humanities; spirituality; grief and loss; mindful presence; Impostor Syndrome; and more.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# FAM CM MED 170.03 Topics in Primary Care (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Margo Vener
Prerequisite(s): None

Restrictions: Open to students in the schools of medicine or nursing.

Activities: Lecture

Students will engage in discussion with speakers on various primary care topics including a day in the life of a primary care physician, women's health, HIV care, care of vulnerable patient populations, etc. The course will follow a lecture/discussion format with presentations by visiting speakers followed by group discussion.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# FAM CM MED 170.04 Disability and Chronic Disease Advocacy (1 Units) Fall

Instructor(s): Clarissa Kripke
Prerequisite(s): None

Restrictions: None
Activities: Lecture

This course, created entirely by UCSF students and health care providers who themselves identify as having a disability or chronic illness, will increase awareness and support of disability and chronic illness on UCSF campuses, and take this learning forward into each student's clinical practices.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# FAM CM MED 170.06 Program in Med. Educ. for the Urban Underserved - PRIME-US (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Heather Hervey-Jumper, Monica Hahn

Prerequisite(s): Admission to PRIME-US

Restrictions: Only PRIME-US students

Activities: Seminar

FCM 170.06 is a required elective for PRIME-US students that is taken a minimum of four times by each PRIME-US@UCSF student during the fall, winter, and spring of the first year of medical school and the fall of the second year of medical school and five times for PRIME-US@JMP students (times listed above and additional spring of second year.)

Additionally, PRIME-US@JMP students and PRIME-US@UCSF students may take FCM170.06 again during Career Launch, at the discretion of the course director.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# FAM CM MED 170.08 Complementary Paths of Healing (1 Units) Fall

Instructor(s): Anand Dhruva Prerequisite(s): None.

Restrictions: None.
Activities: Lecture

This introductory 1 unit P/NP course is open to all UCSF students and explores the general theory and practice of several widely utilized non-allopathic healing modalities with the aim of demonstrating how these therapies can be complementary to modern biomedicine. \r\n\r\nThis is a student run elective that is held once annually, please check the SOM undergraduate electives page to verify when the course will be held: http://meded.ucsf.edu/ume/first-and-second-year-electives

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### FAM CM MED 170.10A Houselessness and Health Inequities (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Margo Vener, William Shore, Daniel Wlodarczyk, Joshua

Bamberger

Prerequisite(s): N/A

Restrictions: N/A

Activities: Seminar, Clinical

A survey course covering the broad spectrum of living issues (health care, drug addiction, HIV, shelter life, etc.) confronting the homeless population of San Francisco. The course will consist of work at a Homeless Shelter, with half the time in group discussion/seminar and half the time doing clinical work with patients at a shelter.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No

Repeat course for credit? Yes

# FAM CM MED 170.18 Caring for the Underserved (1 Units) Fall, Winter

Instructor(s): Monica Hahn Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course is intended to raise awareness around important topics and issues concerning the care of underserved populations from an interdisciplinary perspective. Lecture topics focus on the principles, practices and populations of underserved care. Lecturers reflect a diversity of health professions ranging from social workers, physicians, pharmacists, nurses, and other community leaders that work with underserved communities.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# FAM CM MED 170.20 Engaging Communities in Health Outcomes (ECHO) (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Manuel Tapia

Prerequisite(s): Only professional students

Restrictions: MD students

Activities: Fieldwork, Workshop

This course is focused on professional development skills-building in which medical students work directly with Family Resource Centers (FRCs) across San Francisco. This course focuses on community engagement/development as students will make recurrent site visits to the FRCs. During this course, students will co-facilitate at least two Health Coaching sessions, and strategize with colleagues and FRC community partners on how to develop curricular improvements for the following academic year.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 170.25 San Joaquin Valley Prog. in Medical Education Seminar Series (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Loren Alving, Yolanda Tinajero

Prerequisite(s): Admission to San Joaquin Valley PRIME Program

Restrictions: only SJV PRIME students

Activities: Lecture, Seminar, Project

Students enrolled in this course are part of the SJV PRIME cohort and will participate in a longitudinal seminar series. Seminars will explore and discuss topics related to health disparities in the central San Joaquin valley.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### FAM CM MED 171.01 The Healer's Art (1.5 Units) Winter, Spring

Instructor(s): Thomas McNalley

Prerequisite(s): 1st & 2nd year medical students.

Restrictions: Medical students only

Activities: Workshop

The Healer's Art elective, a 15-hour discovery model process offers 1st year medical students the opportunity to bring more of their authentic self to the study and practice of medicine. In both large and small group formats both faculty and students explore time-honored values of service, personal relationships, humanism, reverence for life and compassion.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### FAM CM MED 171.05 Longitudinal Primary Care Elective (1 Units) Winter, Spring

Instructor(s): Margo Vener
Prerequisite(s): None

Restrictions: 1st year medical students only

Activities: Lecture

The Longitudinal Primary Care Elective is an experience in which first year medical students learn about the importance of primary care and continuity relationships. Students discuss the role of primary care and focus on key issues in preventive care. Using primary care cases, students practice essential elements of a primary care visit including: patient interviewing techniques, the hypothesis-driven physical exam, outpatient procedures, closing the loop, patient education and counseling.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### FAM CM MED 171.06 Forensic Medical Evaluation of Asylum Seekers (1 Units) Fall

Instructor(s): Triveni Defries
Prerequisite(s): None

Restrictions: None

Activities: Lecture

The course will empower students to both understand and act to alleviate the health challenges faced by displaced populations. Students will learn to conduct forensic medical and psychiatric evaluations of asylum seekers in the U.S. Students will apply skills learned during the elective by taking part in medical and psychiatric asylee evaluations in the clinic. The course will additionally host speakers who are leaders in refugee health and connect students with research opportunities.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### FAM CM MED 171.07 Introduction to Harm Reduction and Addiction Medicine (1 Units) Fall

Instructor(s): Daniel Ciccarone
Prerequisite(s): None

Restrictions: None

Activities: Lecture

This elective explores the principles of harm reduction and the health care and structural challenges among people living with substance use disorders. Our speakers include community stakeholders in the harm reduction movement, health professionals and researchers. Our goal is to help dismantle stigma around drug use and help students recognize substance use disorders as a pressing primary care and public health issue that can be addressed using evidenced-based interventions.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### FAM CM MED 172A Legal Medicine (2 Units) Fall

Instructor(s): Dan Tennenhouse

Prerequisite(s): None

Restrictions: UCSF health professional students

Activities: Lecture

Fundamental legal principles and procedures affecting medical practice, with emphasis on medical negligence; the physician's role in the litigation process; the areas of medical practice which most frequently involve litigation; and practical measures to minimize the risk of lawsuit.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### FAM CM MED 172B Legal Medicine (2 Units) Winter

Instructor(s): Dan Tennenhouse

Prerequisite(s): None

Restrictions: UCSF health professional students

Activities: Lecture

Fundamental legal principles and procedures affecting medical practice, with emphasis on medical negligence; the physician's role in the litigation process; the areas of medical practice which most frequently involve litigation; and practical measures to minimize the risk of lawsuit.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course**: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# FAM CM MED 184 Contemporary Issues in Latinx Health (1 Units) Fall, Winter, Spring

Instructor(s): Manuel Tapia

Prerequisite(s): Health professional students

Restrictions: None
Activities: Seminar

An introduction to demographic, political/economic, anthropologic and sociologic issues of importance for the health of diverse Latino subcultures in the US.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# FAM CM MED 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Margo Vener

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### **Genetic Counseling (GENCOUNSEL)**

#### GENCOUNSEL 201 Human Genetics (2.5 Units) Fall

Instructor(s): Marta Sabbadini Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

This course is an advanced exploration of the fundamental principles in human molecular genetics and the molecular basis of disease. These topics are illustrated through discussion of gene and genome structure, regulation of gene expression, DNA damage and repair, human genetic variation, the basis of heredity such as Mendelian and non-Mendelian inheritance patterns, mechanisms of genetic disease and an introduction to genomic testing methodologies.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### GENCOUNSEL 202 Clinical Cytogenetics (2 Units) Fall

Instructor(s): Jingwei Yu
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

The course content will introduce cytogenetics/genomics theories, chromosome morphology and organization, cytogenetic naming conventions, transmission of cytogenetic anomalies, assessment of recurrent risks and the analytical tools used for diagnosis and investigation of human genetic variations. Counseling scenarios will provide insight into the applications of classroom content to actual cases. Opportunities to visit the cytogenetic laboratory will also be available.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 203 Research Methods for Genetic Counselors I (2 Units) Fall

Instructor(s): Julie Harris-Wai
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

Research Methods I is an introduction to the Genetic Counseling Capstone Project and orientation to the ethical and logistical conduct of research. This is the first in a series of two courses meant to guide students towards developing their capstone project proposal.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### GENCOUNSEL 204 Principles of Counseling & the Lived Experience of Illness (2 Units) Fall

Instructor(s): Summer Segal
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

This course will introduce the fundamental principles of genetic counseling and facilitate understanding of the lived experience of illness at various ages and life stages. Emphasis will be placed upon the psychosocial implications of genetic disease and its impact on normative individual and family development.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 205 Advanced Medical Genetics I (2.5 Units) Fall

Instructor(s): Cynthia Morgan
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

This course is the first of a three-part series and seeks to provide students with the fundamentals of applied medical genetics. Students will be introduced to medical genetics terminology, the genetics medical evaluation and a broad range of genetic conditions and syndromes from a systems-based approach. An emphasis will be placed on critical thinking and an applied framework to evaluating genetic conditions. Resources for case management and patient support will also be integrated throughout.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GENCOUNSEL 207 Clinical Embryology for Genetics Clinicians (1 Units) Fall

Instructor(s): Cynthia Morgan
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Web work

This course will familiarize students with key aspects of human prenatal development from conception through birth. Particular focus is given to formation of the embryologic germ layers, developmental mechanisms and organ system formation in order to provide an understanding of the embryological basis of congenital anomalies and genetic malformation syndromes.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 208 Research Methods for Genetic Counselors II (2 Units) Winter

Instructor(s): Julie Harris-Wai Prerequisite(s): GENCOUNSEL 203

Restrictions: Genetic Counseling Program students only

Activities: Lecture

This course introduces students to the fundamentals of research study design, methods and data collection. It serves as an introduction to quantitative, qualitative, intervention, and mixed methods research, as well as evaluation approaches. This course builds on the training and topics covered in GENCOUNSEL 203. Students will gain competencies for conducting research and evaluation in order to prepare for their capstone project and cultivate lifelong fundamental research and evaluation skills.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### **GENCOUNSEL 209** The Genetic Counseling Session: From Theory to Practice (2 Units) Winter

Instructor(s): Jane Chinn

Prerequisite(s): GENCOUNSEL204

Restrictions: Genetic Counseling Program students only

Activities: Lecture

Building upon the theoretical foundation introduced in GENC204, this course focuses on the practical aspects of the clinical encounter. The course is structured around key components of a genetic counseling session. Students will learn skills and techniques for engaging and interviewing clients, communicating complex information, assessing risk perception, facilitating decision making, performing a psychosocial assessment and utilizing alternative service delivery models.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# **GENCOUNSEL 210 Reproductive Genetics (2 Units) Winter**

Instructor(s): Allyson Scott Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

This course introduces reproductive genetic counseling along with the business of healthcare. Pregnancy, infertility, screening vs. diagnostic testing options, abnormal outcomes, fetal interventions and terminations will be addressed. Psychosocial and ethical dilemmas unique to reproductive genetics allows for rich discussion. Additionally, an introduction to billing and reimbursement, coding, public versus private payers, credentialing and healthcare system delivery models is provided.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# GENCOUNSEL 211 Advanced Medical Genetics II (2.5 Units) Winter

Instructor(s): Cynthia Morgan
Prerequisite(s): GENCOUNSEL 205

Restrictions: Genetic Counseling Program students only

Activities: Lecture

This course builds on GENCOUNSEL205. Conditions with more complex and non-Mendelian inheritance patterns will be introduced, as well as non-traditional fields of medical genetics. Students will learn from and interact with topic experts using a case-based learning format. Resources for case management and patient support will also be integrated throughout the curriculum. Critical thinking and an applied framework for evaluating medical genetics conditions will be emphasized.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# GENCOUNSEL 212 Graduate Seminar in Genetics I (1 Units) Winter

Instructor(s): Allyson Scott
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Seminar

This seminar is a combination of practical topics and an examination of current literature in the field of genetic counseling and genomic medicine. The intent is to build professional skills, while also raising academic interest in clinical genetics. Class review of journal articles will enable students to become better consumers of the scientific literature, consider important components when developing research methodologies, critique research-based writing and cultivate presentation skills.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### GENCOUNSEL 213 Precision Medicine and Variant Interpretation (2 Units) Winter

Instructor(s): Marta Sabbadini
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

This course provides an introduction to the latest techniques for discovering and interpreting genomic alterations; especially as applied to clinical care. The multidisciplinary application of genomic sequencing will be addressed with a primary focus on exome sequencing and variant interpretation. Students will develop critical thinking skills related to testing strategies and genomic data interpretation.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **GENCOUNSEL 214 Externship I (1.5 Units) Winter**

Instructor(s): Allyson Scott, Cynthia Morgan

Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Clinical

Externship I is an opportunity to give first year students clinical exposure prior to embarking on clinical rotations. Under the supervision of genetic counselors or medical geneticists, students will develop practical genetic counseling skills through authentic patient encounters or pre-curated exercises. The focus of the Externship Program is the application of coursework to the clinical setting and the acquisition of basic, practical skills relevant to any area of practice.\r\n

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# GENCOUNSEL 215 Hereditary Cancer Genomics (2 Units) Spring

Instructor(s): Adrienne Wakeling, Nicola Cadenas

Prerequisite(s): None

Restrictions: Genetic Counseling students only

Activities: Lecture, Clinical

This course provides an understanding of the role of genes in acquired, familial and inherited forms of cancer. Discussion of common types of cancer as well as rare hereditary cancer syndromes by body system are explored. The course also addresses surgical options, cancer treatment(s), the psychosocial aspects of cancer, risk assessment, germline testing, genomic tumor profiling and cell-free tumor analysis.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 216 Social, Ethical & Legal Issues in Genetics (2 Units) Spring

Instructor(s): Julie Harris-Wai Prerequisite(s): None

Restrictions: Genetic Counseling Students only

Activities: Lecture

This course covers ethical and social issues in genetics and genomics relating to research and clinical practice. A case-based approach assists students developing basic skills in ethical reasoning. Assigned readings, genetics- and bioethics-related news stories, in-class discussions, and lectures will help participants situate questions of practice within broader social and political debates.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# **GENCOUNSEL 217 Graduate Seminar in Genetics II (1 Units) Spring**

Instructor(s): Allyson Scott

Prerequisite(s): GENCOUNSEL 212: Graduate Seminar in Genetics I

Restrictions: Genetic Counseling students only

Activities: Seminar

This seminar is a combination of practical topics and an examination of current literature in the field of genetic counseling and genomic medicine. The intent is to build professional skills, while also raising academic interest in clinical genetics. Class review of journal articles will enable students to become better consumers of the scientific literature, consider important components when developing research methodologies, critique research-based writing and cultivate presentation skills.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 218 Advanced Medical Genetics III (2.5 Units) Spring

Instructor(s): Cynthia Morgan

Prerequisite(s): GENCOUNSEL 211: Advanced Medical Genetics II

Restrictions: Genetic Counseling students only

Activities: Lecture

This is the final Advanced Medical Genetics course. Discussion of conditions with complex and non-Mendelian inheritance patterns continues along with an intro to metabolic diseases and therapeutic interventions. Students will learn from and interact with topic experts using a case-based learning format. Resources for case management and patient support will also be integrated throughout the curriculum. Critical thinking and an applied evaluation framework for genetic conditions is emphasized.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# **GENCOUNSEL 219 Foundational Counseling Skills (2 Units) Spring**

Instructor(s): Summer Segal
Prerequisite(s): None

Restrictions: Genetic Counseling students only

Activities: Lecture

This course provides the foundational knowledge and skills necessary for effective client-centered counseling. Focus is placed upon establishing and maintaining a therapeutic relationship through practices that promote the counselor's self-awareness, as well as the capacity to empathically attune and attend to clients' needs. Common client-counselor relational dynamics and client coping strategies will be addressed. Students will learn psychosocial interventions promoting adaptation to illness.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 220 Externship II (1.5 Units) Spring

Instructor(s): Allyson Scott, Cynthia Morgan Prerequisite(s): GENCOUNSEL 214: Externship I

Restrictions: Genetic Counseling students only

Activities: Clinical

This course is a continuation of Externship I and will build upon the skills acquired during that course. Under the supervision of established genetic counselors or medical geneticists, students will prepare for the professional role through pre-curated exercises, increasing their interaction with patients and actively participating in professional care. Students will spend approximately 4 hours per week in Externship II.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### GENCOUNSEL 221 Integral Topics to Genetic Counseling (2 Units) Fall

Instructor(s): Cynthia Morgan Prerequisite(s): None

Restrictions: Genetic Counseling students only

Activities: Lecture

Students are exposed to broader applications of genetic medicine while expanding the idea of a genetic counseling encounter. Methods to ensure a practice inclusive of marginalized and vulnerable populations will be explored, including roles as professional advocates. Current public health genetics programs are discussed and debated for costs and benefits. Conflicts between the genetics and disability communities regarding the application and expansion of genetic medicine are also discussed.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# GENCOUNSEL 222 Advanced Counseling Skills (2 Units) Winter

Instructor(s): Summer Segal
Prerequisite(s): None

Restrictions: Genetic Counseling students only

Activities: Lecture

Students will deepen their clinical practice studying more complex topics for health care providers: communicating bad news, working with difficult emotions, navigating grief and loss, addressing death and dying, exploring hope and spirituality, and facilitating healing. A mindfulness-based framework for promoting self-reflection is woven throughout the course. Classwork emphasizes experiential learning designed to help students gain competency in challenging clinical encounters.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

# **GENCOUNSEL 223 Professional Formation (2 Units) Spring**

Instructor(s): Cynthia Morgan
Prerequisite(s): None

Restrictions: Genetic Counseling students only

Activities: Lecture

This course prepares students to transition into the professional world. Students will gain knowledge about the organizational structures and administrative practices of the major genetics professional societies, including the benefits of membership. They will appreciate the professional responsibility to train the next generation of genetic counselors, acquire practice administrative skills, develop a plan for board certification and licensure; and discover the value of continuing education.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# **GENCOUNSEL 224 Capstone Research Project (1.5 Units) Fall, Winter, Spring, Summer**

Instructor(s): Julie Harris-Wai
Prerequisite(s): None

Restrictions: Genetic Counseling students only

Activities: Independent Study

The Capstone Project allows students to gain experience in research project development and implementation, institutional research requirements, research methodology and data analysis, evidence-based approaches to problem solving, professional writing, and self-directed learning in order to increase their professional growth and contribute to the field of genetic counseling. It will also permit students to deeply explore fields of interest and collaborate with faculty from many disciplines.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Course Grading Convention. P/NP (Pass/Not Pass) of 5/0 (Satisfactory

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### GENCOUNSEL 225 Clinical Rotation I (8.5 Units) Summer

*Instructor(s):* Allyson Scott, Cynthia Morgan Prerequisite(s): None

Restrictions: Genetic Counseling Students only

Activities: Clinical

An initial immersive clinical experience allowing students to establish basic skills applying foundational genetic counseling knowledge to practice. Under direct supervision, students spend 32 hrs/wk for 8 weeks in a genetics service setting (patient care, industry etc.). Clinical Rotation I will allow students to demonstrate progress in the acquisition of Practice Based Competencies (PBCs) and obtain cases for board certification eligibility (logbook cases may not be available at all sites).

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **GENCOUNSEL 226 Clinical Rotation II (8 Units) Fall**

*Instructor(s):* Allyson Scott, Cynthia Morgan Prerequisite(s): GENCOUNSEL 225

Restrictions: Genetic Counseling students only

Activities: Clinical

An immersive clinical experience allowing students to continue developing skills applying foundational genetic counseling knowledge to practice. Under direct supervision, students spend 24 hrs/wk in a genetics service setting (patient care, industry etc.). Clinical Rotation II allows students to demonstrate continued progress in the acquisition of Practice Based Competencies (PBCs) and obtain cases for board certification eligibility (logbook cases may not be available at all sites).

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# GENCOUNSEL 227 Clinical Rotation III (8 Units) Winter

*Instructor(s):* Allyson Scott, Cynthia Morgan Prerequisite(s): 226

Restrictions: Genetic Counseling students only

Activities: Clinical

An immersive clinical experience allowing students to continue developing skills applying foundational genetic counseling knowledge to practice. Under direct supervision, students spend 24 hrs/wk in a genetics service setting (patient care, industry etc.). Clinical Rotation III allows students to demonstrate continued progress in the acquisition of Practice Based Competencies (PBCs) and obtain cases for board certification eligibility (logbook cases may not be available at all sites).

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# GENCOUNSEL 228 Clinical Rotation IV (8 Units) Spring, Summer

*Instructor(s):* Allyson Scott, Cynthia Morgan Prerequisite(s): Genetic Counseling 227

Restrictions: Genetic Counseling students only

Activities: Clinical

An immersive clinical experience allowing students to continue developing skills in the application of foundational genetic counseling knowledge to practice. Under direct supervision, students spend 24 hours/week in a genetics service setting (patient care, industry etc.). Clinical rotation IV allows students to demonstrate continued progress in the acquisition of Practice Based Competencies and obtain cases for ABGC certification eligibility (logbook cases may not be available at all sites).

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **GENCOUNSEL 229 Process Group I (0.5 Units) Fall**

Instructor(s): Vinaya Murthy
Prerequisite(s): None

Restrictions: Genetic Counseling students only

Group discussion of counseling and professional issues arising during students' clinical rotations. Active, student-driven discussion is facilitated by a genetic counselor and allows students to share, integrate and process their training experiences. Discussion topics will be derived from case material students bring to the group, prompted by the facilitator or open-ended. Emphasis will be placed on supporting continued development of genetic counseling skills and professional identity.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 230 Process Group II (0.5 Units) Winter

Instructor(s): Summer Segal
Prerequisite(s): 230

Restrictions: Genetic Counseling Students only

Group discussion of counseling and professional issues arising during students' clinical rotations. Active, student-driven discussion is facilitated by a genetic counselor and allows students to share, integrate and process their training experiences. Discussion topics will be derived from case material students bring to the group, prompted by the facilitator or open-ended. Emphasis will be placed on supporting continued development of genetic counseling skills and professional identity.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

# GENCOUNSEL 231 Process Group III (0.5 Units) Spring

Instructor(s): Kanchi Barfiwala
Prerequisite(s): 230

Restrictions: Genetic Counseling students only

Group discussion of counseling and professional issues arising during students' clinical rotations. Active, student-driven discussion is facilitated by a genetic counselor and allows students to share, integrate and process their training experiences. Discussion topics will be derived from case material students bring to the group, prompted by the facilitator or open-ended. Emphasis will be placed on supporting continued development of genetic counseling skills and professional identity.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENCOUNSEL 232 Reimbursement Fundamentals in Genomic Medicine (0.5 Units) Spring

Instructor(s): Cynthia Morgan
Prerequisite(s): None

Restrictions: Genetic Counseling Program students only

Activities: Lecture

Integrating genomic medicine into healthcare is becoming standard practice. Insight into the fundamentals of the US reimbursement systems is critical for any genetics provider to maximize payments and to assist patients in navigating options. This mini-course provides an introduction to public versus private payer systems; billing and reimbursement; coding; authorizations and appeals. Additionally, we will also explore the impact of policy differences on access and costs.

School: Graduate Division

**Department:** Genetic Counseling Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **Genetics (GENETICS)**

## **GENETICS 200A Principles of Genetics (3 Units) Winter**

Instructor(s): Joseph Bondy-Denomy

Prerequisite(s): None

Restrictions: Instructor approval required

Activities: Lecture

In-depth analysis of genetic mechanisms in selected procaryotes and eucaryotes. Topics include recombination, forward and reverse screens including suppressor and enhancer screens, mapping, epistasis analysis, RNAi, CRSIPR, meiotic and mitotic segregation.

School: Graduate Division

Department: Biochemistry And Molecular Biology Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GENETICS 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Completion of 2 quarters of Biochem 215 in the year prior

Restrictions: Students must be in year 2 or above

Activities: Independent Study, Lab science

The course is intended to give students hands-on experience in investigation of a fundamental question in biology using modern techniques and approaches in Genetics. The scope of the research project, formulation of the hypothesis, and the necessary experimental approaches taken to test the hypothesis will be determined based on active input from the student and the lab's Principle Investigator. The student is expected to become increasingly independent in each of these aspects of the project.

**School:** Graduate Division **Department:** Genetics Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? Yes

#### **Global Health Sciences (GLOBL HLTH)**

#### GLOBL HLTH 101X Introduction to Global Health (1.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Carmen Cobb-Walch, Mylo Schaaf, Christopher Stewart
Prerequisite(s): None

Restrictions: None

The Introduction to Global Health online course will cover major global health problems, the actions and approaches to addressing them. This is an entirely online version of GLOBL HLTH 101. Students will engage in a series of online modules including videos, assessments, and activities. There will be the opportunity to explore global health careers. This is an elective course, but is a prerequisite for those planning to do the global health clinical scholars course (GH 103)

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes

Repeat course for credit? No

#### GLOBL HLTH 103 Global Health Pathway Clinical Scholars Course (3.5 Units) Fall

Instructor(s): Michael Lipnick

Prerequisite(s): Enrollment is restricted to students in any UCSF professional school, residents, and fellows, who apply and are accepted into the Global Health Course, or who obtain the consent of the Instructor.

Restrictions: None

Activities: Lecture, Project

This course will survey key topics, concepts and vocabulary of global health practice and focus on the development and background work necessary to complete a scholarly project for the global health pathway. Students will study major global health challenges, strategies for responding to them, and key global health institutions. They will develop skills in project management and leadership for their future global health careers.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

# GLOBL HLTH 170.51 Global Health Interest Group Elective (1 Units) Fall

Instructor(s): Mylo Schaaf
Prerequisite(s): None

Restrictions: None

Activities: Lecture

An elective course that will have a special emphasis on developing global health projects that are equitable and sustainable. Interdisciplinary faculty will discuss their global health work and offer advice on how students can incorporate global health into their career.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### GLOBL HLTH 201A Foundations of Global Health (3 Units) Fall

Instructor(s): Starley Shade
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course introduces the principles of global health by examining different health systems and health metrics with particular emphasis on low and middle income countries. Content will cover demographics, population growth, maternal and child health, migrant health, health effects of climate and environment, poverty and health equity, health governance and key institutions, research, development and philanthropy.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 201B Global Health Economics (3 Units) Spring

Instructor(s): Tracy Lin, Jenny Liu
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course explores the role of economics in global health. It introduces key concepts, terms, and debates; describes health and disease metrics; explores the health-wealth link; examines the importance of poverty and inequality; examines the U.S. health system; reviews the contribution of economics to the global health agenda; and introduces behavioral economics and cost-effectiveness analysis. The perspective is global, illustrating the varied ways that economics can foster improved health.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GLOBL HLTH 201C Qualitative Research Approaches in Global Health (3 Units) Fall

*Instructor(s):* Wayne Steward, Carol Camlin Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course places a particularly strong emphasis on developing skills for conducting qualitative interviews, which are a frequently used technique for answering social and behavioral research questions. It addresses the following questions: What methods can health professionals use to understand the socio-political-cultural environments where they work? Which methods are most appropriate for which research questions? How are qualitative research methods implemented?

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 202A Global Infectious Diseases (3 Units) Winter

Instructor(s): Vivek Jain, Christina Yoon
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course covers global communicable diseases, including the biology, history, epidemiology, and economics of key infections. We will focus on HIV infection, malaria, tuberculosis, and other communicable diseases of international importance. Through lectures, seminars, and independent study, students will learn about the basic principles of infection and immunity, disease epidemiology and pathogenesis, and varied aspects of the treatment and control of leading infections.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GLOBL HLTH 202B Health, the Environment and Noncommunicable Disease (3 Units) Spring

*Instructor(s):* Sujatha Sankaran, Janet Wojcicki Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course covers chronic diseases of global health importance such as cardiovascular illnesses, the emergence of diabetes, cancer, and respiratory disease as well as their risk factors. In addition, the course will emphasize the effects of climate change and environmental exposures. Other topics will include injuries, surgical interventions, humanitarian emergencies, and mental health. Students will learn about policy options and interventions to prevent and manage chronic illnesses.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 202D Social Determinants of Health (3 Units) Fall

Instructor(s): Christopher Carpenter
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course describes cultural, social and economic issues, and the multiple methods of global health research to provide essential background for other core courses. Drawing on anthropology, sociology, public health, global health, and critical global health studies, the course examines factors (e.g. globalization, the impact of social, economic, and political systems, transnational organizations, culture, race, class, gender, sexuality, disability) that create and sustain disparities.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### GLOBL HLTH 202F Strategic Information in Global Health (2 Units) Winter

Instructor(s): Ali Mirzazadeh
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course will cover the following topics:\r\nuse of surveillance and programmatic data for estimating burden of disease and trends in disease; \r\nsampling and estimating size of hard-to-reach populations (e.g., respondent-driven sampling, time-location sampling, capture-recapture); \r\ndata synthesis and triangulation; \r\nmonitoring and evaluation.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 203A Global Health Practice Seminar (2 Units) Fall

Instructor(s): Christopher Carpenter
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This goal of this year-long course is to cultivate all of the skills necessary to develop and complete a capstone proposal. At the end of this course, students will be proficient in: 1) Scientific Writing, 2) Teambased Learning, 3) Presentation Skills, and 4) Ethics, and 5) Scientific Process. The skills built to complete a successful capstone project will be applicable to future global health career paths.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### GLOBL HLTH 203B Global Health Practice Seminar (2 Units) Winter

Instructor(s): Alden Blair, Tracy Lin Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This goal of this year-long course is to cultivate the skills necessary to develop and complete a capstone proposal. At the end of this course, students will be proficient in: 1) Scientific Writing, 2) Scientific Process, 3) Presentation Skills, and 4) Ethics. The project will require mastery of these four proficiencies. In each quarter, we will build on each of these proficiencies. The overall goal of this course is to establish skills that are applicable to future global health career paths.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# GLOBL HLTH 203C Global Health Practice Seminar (2 Units) Spring

Instructor(s): Alden Blair, Tracy Lin Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This goal of this year-long course is to cultivate the skills necessary to develop and complete a capstone proposal. At the end of this course, students will be proficient in: 1) Scientific Writing, 2) Scientific Process, 3) Presentation Skills, and 4) Ethics. The project will require mastery of these four proficiencies. In each quarter, we will build on each of these proficiencies. The overall goal of this course is to establish skills that are applicable to future global health career paths.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GLOBL HLTH 203D Global Health Practice Seminar (2 Units) Summer

Instructor(s): Alden Blair, Tracy Lin Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This is part four of a year-long course intended to develop all the skills necessary to complete and develop a capstone proposal. The five main proficiencies are: 1) Scientific Writing, 2) Team-based Learning Skills, 3) Professional Development, 4) Presentation Skills, and 5) Scientific Process. The development and successful completion of the capstone project will require mastery of these proficiencies. This course will establish skills that are applicable to future global health career paths.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 204A Global Health Capstone (3 Units) Spring

Instructor(s): Alden Blair, Tracy Lin Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Seminar, Fieldwork

All students will enroll in this course while completing their independent capstone project. Students will be responsible for continually assessing their own progress and discussing with their mentors their progress and the application of their didactic learning to their particular setting. They will spend the entire two months on this project.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

#### GLOBL HLTH 204B Global Health Capstone (3 Units) Summer

Instructor(s): Alden Blair, Tracy Lin Prerequisite(s): None

Restrictions: Enrollment in Global Health Sciences Masters Degree Program, unless expressly given permission by the course director and MS Program Director.\r\n \r\nDue to a special agreement with the Masters in Translational Medicine and the Biomedical Engineering Programs, those students will be given priority for any additional spaces in selected courses. However, approval by course director and both program directors required.

Activities: Seminar, Fieldwork

The Capstone project provides a rich opportunity to explore an interest area in considerable depth. You are required to develop a longitudinal project, starting in the fall quarter, culminating in a final written and oral presentation at the end of summer quarter. Students will work closely with the Practice Seminar (GHS 203) course faculty to develop an appropriate project based on interest, skills and an available field site where UCSF has an ongoing project.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 205 Global Health Policy (3 Units) Winter

Instructor(s): Laura Schmidt

Prerequisite(s): Successful completion of GHS 201A, 201B, 202A, 202B, 203A, and 203B.

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course will introduce policy and development in the context of global health. Students will examine the structure and function of evidence-based policy planning and implementation using selected case studies. Learning the skills of assessment, monitoring, and evaluation, students will examine global health development interventions ranging from disease control to eradication to health promotion. Use of guest lecturers will acquaint the students with field experiences and practical outcomes.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### GLOBL HLTH 206 Introduction to Epidemiology (3 Units) Fall

Instructor(s): Mohsen Malekinejad Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

To introduce basic principles of biomedical epidemiology research. Topics: goals and basic principles of epidemiology for public health research, descriptions of the basic study designs used in epi (case-control, cohort, cross-sectional, ecologic, descriptive and others), common errors seen in epi (confounding and bias) and how epi research is used to advance public health. Specific topics: study design, bias, confounding, data collection, ethics, causal inference, and meta-analysis.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 207 Introduction to Biostatistics (6 Units) Fall

Instructor(s): Ali Mirzazadeh
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course will provide an introduction to biostatistics. Topics from probability and descriptive statistics through to bivariate analyses and concluding with multivariable modeling theory. Parametric and nonparametric statistical methods will be taught. R statistical software will be used for analyses.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### GLOBL HLTH 208 Women's Health, Gender and Empowerment (3 Units) Winter

Instructor(s): Mara Decker
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

The course provides knowledge and skills from several disciplines on how to improve women's health globally. It aims to expand students' understanding of the interconnected factors that influence women's health and empowerment - including foundations of sexual and reproductive health, economic development, political frameworks and global reproductive rights, demographic and social changes, basic principles of empowerment theory, educational opportunities, and advances in gender equity.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 209 Comparative Health Systems: Financing and Delivering Health (3 Units) Winter

Instructor(s): Christopher Carpenter
Prerequisite(s): None

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture, Seminar

This course will examine the most important models for financing and delivering health care around the world. The course will provide a historical and cultural perspective on how countries organize their health systems, and discuss the implications of these policy choices on cost, access, and quality of care.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# GLOBL HLTH 210 Conflict, Health, and Human Rights (3 Units) Winter

Instructor(s): Alden Blair

Prerequisite(s): Students taking this course should have a working understanding of epidemiological research methods including study designs (e.g. cohort, case-control, etc), bias, and confounding. There are no specific course prerequisites.

Restrictions: Enrollment in MS in Global Health, unless expressly given permission by the course director and MS Program Director. Masters in Translational Medicine and Biomedical Engineering students will be given priority for any additional spaces. Approval by course director and both program directors is required. GHS program dates differ from the UCSF Academic Calendar. Refer to the GHS MS calendar at http://globalhealthsciences.ucsf.edu/education/masters-program/about-program/academic-calendar

Activities: Lecture. Seminar

Conflict and human rights violations continue to be a major concern for millions of people around the globe, facing violence, discrimination and threats to their lives, livelihoods and well-being. Traditional human rights reporting focuses on documentation of egregious or individual cases based on a legal approach. This course explores the epidemiological frameworks and methodologies to better assess and document the impacts of conflict on human health.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 217 Doctoral Seminar (2 Units) Fall, Winter, Spring

Instructor(s): Elizabeth Fair, Ali Mirzazadeh

Prerequisite(s): None.

Restrictions: This seminar is only offered to PhD in Global Health

Sciences students.

Activities: Seminar, Workshop

The global health doctoral seminar is designed to educate students about interdisciplinary approaches to global health challenges, provide professional development and career training/mentorship in global health research, and enable students to advance their academic and research skills, with the ultimate goal of facilitating the development of the doctoral student's capacity to conduct research in global health.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# GLOBL HLTH 248 Teaching Residency (1-2 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of Instructor

Restrictions: Enrollment in Global Health Sciences PhD Program.

The purpose of the teaching residency is to allow students to increase their knowledge in an area of interest, to present and explain the material to others in an effective manner, and to build their base of teaching experience in preparation for future academic positions.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? Yes

### GLOBL HLTH 249 Research Rotation (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Completion of first quarter of doctoral study and consent of adviser.

Restrictions: Enrollment in Global Health Sciences PhD Program.

Activities: Lab science

The student will participate in ongoing faculty research. This experience will contribute to the students methodological or substantive expertise. Research Rotations provide extensive specialized experiential training with a specific deliverable (e.g. survey instrument, statistical plan, manuscript). During the Research Rotation the student is apprenticed under a specific member of the research team (the Rotation Director), who manages and is responsible for the experience.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? Yes

### GLOBL HLTH 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Completion of Global Health Sciences PhD core curriculum coursework

Restrictions: Enrollment in Global Health Sciences PhD program

Activities: Project

This course allows PhD students who are involved with Global Health research to obtain credit for their research.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 251 Global Health Development and Inequity (2 Units) Fall

Instructor(s): George Rutherford Prerequisite(s): None

Restrictions: First year PhD in Global Health Sciences students or

consent of instructor.

Activities: Lecture, Seminar

This course serves as a foundation for doctoral level studies in global health. It assumes a basic familiarity with the fundamental principles and concepts in global health. Students will study the social and environmental factors affecting health, major global health challenges, and the role of national, multilateral and non-governmental actors. The course will also serve to introduce the students to the UCSF global health community, both within and beyond GHS.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GLOBL HLTH 252 Comparative Health Systems and Financing (2 Units) Fall

Instructor(s): Dominic Montagu

Prerequisite(s): None

Restrictions: Priority given to students enrolled in the PhD in Global Health Sciences program. Open to students in other programs with consent of instructor.

Activities: Lecture, Seminar

This course examines the most important models for financing and delivering health care around the world. Students will be taught to map and analyze the health systems of countries at various income levels, and to assess the strengths and weaknesses of these systems in achieving health goals. Students will learn about current debates about health systems, health financing, and Universal Health Coverage (UHC). Innovative models of health services delivery and financing will be presented.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GLOBL HLTH 253 Global Health Policy (2 Units) Winter

Instructor(s): Laura Schmidt

Prerequisite(s): Students are encouraged to review the more basic curriculum of the Masters program and to particularly take advantage of materials housed on the website of GHS 205, Global Health Policy.

Restrictions: Priority given to students enrolled in the PhD in Global Health Sciences program. Open to students in other programs with consent of instructor.

Activities: Lecture, Seminar

This course is an intensive exploration of theories of the global health policymaking process. It provides an advanced, high-level perspective on stages of the policy process, from agenda-setting, to policy development, to implementation. Course materials include foundational readings in policy literature and contemporary accounts. Discussions are tailored to address the substantive cases that will preoccupy students during their qualifying exams and dissertation research.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### GLOBL HLTH 254 Research Ethics and Practice in Global Health (2 Units) Spring

Instructor(s): Nadia Diamond-Smith, Patience Afulani

Prerequisite(s): None

Restrictions: Priority given to students enrolled in the PhD in Global Health Sciences program. Open to students in other programs with consent of instructor.

Activities: Lecture, Seminar

This pro-seminar will consist of 10 seminars based on discussions of research ethics and their application to the realities of conducting research in the field. We will bring in guests with expertise in ethics and research application, and engage in lively discussion and case studies. Students will be challenged to develop their own cultural framework and consider how they might engage in more ethically focused research and address potential ethical quandaries in their future research.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GLOBL HLTH 255 Global Health Economics Doctoral Seminar (3 Units) Fall, Winter

Instructor(s): Tracy Lin, Jenny Liu
Prerequisite(s): None

Restrictions: First- and second-year PhD in Global Health Sciences students or consent of instructor.

Activities: Lecture, Seminar

This course examines the economics of health and health care as it applies to global health. Students will be introduced to an economic conceptual framework for thinking about the challenges of health improvement in poor countries. The course will survey a range of topics related to determinants of health and the organization, delivery, and financing of health care.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### GLOBL HLTH 256 Global Health Architecture and Diplomacy (2 Units) Spring

Instructor(s): Jaime Sepulveda

Prerequisite(s): This course is designed for doctoral level students who want to expand their knowledge of Global Health architecture and diplomacy. Students will be expected to have general knowledge about Global Health, including its main players and stakeholders as well as to keep up with the corresponding readings and assignments for each lecture and seminar.

Restrictions: Priority given to students enrolled in the PhD in Global Health Sciences program. Open to students in other programs with consent of instructor.

Activities: Lecture, Seminar

This doctoral seminar reviews the current health worldwide system—from UN agencies and governmental agencies to multilaterals, NGO's and civil society. It also examines how health has been historically a powerful diplomatic tool. The course will be taught by global leaders of each topic through a combination of lecture, seminars and independent readings and study.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GLOBL HLTH 260 Epidemiologic Methods for Global Health Research (4 Units) Fall

Instructor(s): Elizabeth Fair
Prerequisite(s): None

Restrictions: This course is intended for first year PhD students in Global Health Sciences. Additional Doctoral Students may join with approval of instructor.

Activities: Lecture, Project, Discussion

Epidemiology includes the study of the distribution and determinants of disease and causes of health-related states or events in populations; it is a foundational skill required for global health research. This course will provide the epidemiologic theory and technical skills, as well as international context and values of collaborative practice, that will allow students to apply epidemiologic methods and design studies in diverse global settings and populations.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# GLOBL HLTH 294 Independent Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: None

Activities: Independent Study

This independent study course will involve in-depth study in a chosen field of global health importance that will result in a grant submission, publication or research paper. The student will submit an outline of goals and objectives that must be approved by the Program Director and the Faculty Advisor.

School: Global Health

**Department:** Global Health Sciences

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Graduate Studies (GRAD)**

#### GRAD 202 Racism in Science (3 Units) Fall

Instructor(s): Aimee Medeiros, D'anne Duncan

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Web work, Discussion

This introductory course provides the historical background of systemic racism in scientific research. It explores the relationship between notions of race and science and how scientific research has been informed by and perpetuates anti-Black racism. This course also examines the impact of bias and a lack of diversity in science and ways in which to address these deficiencies. Students will learn the principles of social justice-oriented scientific research and its potential.

School: Graduate Division

Department: Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### GRAD 210 Justice, Equity, Diversity and Inclusion Academic Leadership (4 Units) Winter

Instructor(s): D'anne Duncan
Prerequisite(s): None

Restrictions: Instructor approval required.

Activities: Seminar, Project, Workshop

The DEI Academic Leadership course will offer training in diversity, equity, and inclusion (DEI) and leadership to prepare graduate students to incorporate DEI values in scientific leadership roles. Through exposure to terminology, history, theories, self-reflection, and critical discussion, this course aims to develop and apply foundational principles to become a DEI leader in academic institutions and scientific enterprises. Students must submit an application prior to course enrollment.

**School:** Graduate Division **Department:** Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### GRAD 213 Motivating INformed Decisions (MIND) Catalytic Course (2 Units) Winter

Instructor(s): D'anne Duncan
Prerequisite(s): None

Restrictions: Only graduate students who have been accepted into the MIND Program are allowed to register for this course.

Activities: Lecture, Workshop

This MIND Catalytic Course teaches skills in career exploration and professional development, by providing students a conceptual framework and practical tools. The course is career-neutral; it is geared for students who are starting or still considering their career options. The course encourages students to explore and aggressively pursue their career(s) of choice, including those within and beyond academia.

School: Graduate Division

Department: Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

# GRAD 214 Responsible Conduct of Research and Rigor & Reproducibility (1.5 Units) Winter

*Instructor(s):* D'anne Duncan Prerequisite(s): None.

Restrictions: First Year PhD students in the basic sciences

Activities: Lecture, Discussion

This course, which will be delivered over two quarters to first year PhD students in the basic sciences, will cover topics related to the responsible conduct of research and rigor and reproducibility. 50% inperson attendence at scheduled lectures and discussions sessions will be expected. Students will review and participate in case study discussions and submit a final written report.

School: Graduate Division

Department: Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### GRAD 215 Managing your Research for Reproducibility (1 Units) Fall

Instructor(s): D'anne Duncan
Prerequisite(s): None

Restrictions: This should be available to all PhD students (the form didn't

let us select them all!).

Activities: Lecture, Project, Discussion

This course will introduce reproducibility in the biomedical sciences and equip students with tools and strategies to increase the transparency of their research. Students will learn how to use data management plans as a tool for organizing their research, and by the end of the class will have created a plan that meets NIH grant requirements. Students will engage with the material via lecture, hands-on workshops, case study discussions, and project work.

**School**: Graduate Division **Department**: Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

### GRAD 219A Special topics in racism and social justice in science (3 Units) Spring

Instructor(s): D'anne Duncan Prerequisite(s): GRAD 202

Restrictions: For Graduate Students in the listed programs.

Activities: Lecture, Independent Study

Each course offering will focus on literature and scholarship at the intersection of race, racism, and social justice, with biomedical research and health. Students will be expected to evaluate assigned readings critically before class and to present and discuss themes in class. Students will also be expected to write and present an essay that includes critical analysis of topics covered.

**School:** Graduate Division **Department:** Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

s this an interprofessional Education (ii E) course: No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

# GRAD 219B Special topics in racism and social justice in science (3 Units) Spring

Instructor(s): D'anne Duncan
Prerequisite(s): GRAD 202

Restrictions: For Graduate Students in the listed programs.

Activities: Lecture, Independent Study

Each course offering will focus on literature and scholarship at the intersection of race, racism, and social justice, with biomedical research and health. Students will be expected to evaluate assigned readings critically before class and to present and discuss themes in class. Students will also be expected to write and present an essay that includes critical analysis of topics covered. Each course in this series (219A, B and C) will focus on different aspects of racist and colonial framework.

**School**: Graduate Division **Department**: Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

### GRAD 219C Special topics in racism and social justice in science (3 Units) Spring

Instructor(s): D'anne Duncan Prerequisite(s): GRAD 202

Restrictions: For Graduate Students in the listed programs

Activities: Lecture, Independent Study

Each course offering will focus on literature and scholarship at the intersection of race, racism, and social justice, with biomedical research and health. Students will be expected to evaluate assigned readings critically before class and to present and discuss themes in class. Students will also be expected to write and present an essay that includes critical analysis of topics covered. Each course in this series (219A, B and C) will focus on different aspects of racist and colonial framework.

**School:** Graduate Division **Department:** Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# GRAD 285 Internships and Experiential Learning (GSICE) (1.5 Units) Spring

Instructor(s): D'anne Duncan
Prerequisite(s): None

Restrictions: Only graduate students who have been accepted into the GSICE Program are allowed to register for this course.

Activities: Lecture, Workshop

This is the training program for graduate students accepted into the Graduate Student Internships for Career Exploration (GSICE) Program. The course covers career and professional development training (Individual Development Plans, job search skills, interviewing skills, communication skills) with a focus on career transitions that occur at the end of graduate training. Special emphasis is placed on preparation for more intensive career exploration activities, such as internships.

School: Graduate Division

Department: Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# GRAD 286 GSICE Curricular Practicum (1 Units) Fall, Winter, Spring, Summer

Instructor(s): D'anne Duncan
Prerequisite(s): GRAD 285

Restrictions: None.

Activities: Independent Study

This course is offered to students who require course supervision for an experiential learning/internship opportunity.

School: Graduate Division

Department: Graduate Studies

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# **Healthcare Administration (HLTH ADMIN)**

# HLTH ADMIN 200A Advanced Scholarship in Health Systems Research (3 Units) Fall, Spring

Instructor(s): Laura Wagner
Prerequisite(s): None

Restrictions: Enrollment in Healthcare Administration and Interprofessional Leadership Program

This foundation course introduces research design, methods and skills essential to translate evidence into interprofessional practice, leadership and policy. Students will critique the scientific and practical merit of research studies including elements of design, sample selection, bias, data collection procedures, metrics, and interpretation of findings. The course provides a foundation for using evidence to develop, implement and evaluate the capstone project during the students two-quarter

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# HLTH ADMIN 200B Healthcare Finance and Economics (3 Units) Fall, Spring

Instructor(s): Melek Nasr Totah
Prerequisite(s): none

Restrictions: Enrollment in Healthcare Administration and

Interprofessional Leadership Program

This foundation course presents an everyion of the health

This foundation course presents an overview of the healthcare financial landscape, players, mechanics, and characteristics of reform. The course introduces core concepts of financial management including balance sheets, income statements, cash flow streams and the managerial accounting building blocks of budgeting and planning. Students will participate in interactive and targeted assignments and case studies to translate financial concepts into tangible tools to assess, manage, and improve heal

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### HLTH ADMIN 201 Leadership: Forces of Change (3 Units) Winter, Summer

Instructor(s): Jarmin Yeh

Prerequisite(s): Hlth Admin 200A\r\nHlth Admin 200B\r\nHlth Admin 2007A\r\n

 $207A\r\n$ 

Restrictions: Enrollment in Healthcare Administration and Interprofessional Program

This course introduces students to leadership theory and practice by focusing on the meaning of leadership in relationship to healthcare and societal trends. Topics include recognizing traits, developing skills, creating a vision, listening to out-group members, overcoming obstacles, addressing values and ethics, and leading and motivating through change. Students will critically reflect upon and improve their leadership performance through interactive exercises and self-reflective activities.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### HLTH ADMIN 202 Leadership: Environmental Systems (3 Units) Winter, Summer

Instructor(s): Sharon Woodworth

Prerequisite(s): HLTH ADMIN 200A, HLTH ADMIN 200B,

**HLTH ADMIN 207A** 

Restrictions: Enrollment in Healthcare Administration and

Interprofessional Leadership program

This course educates healthcare leaders about the built environments impacts on access, affordability, quality, and safety of healthcare delivery. This on-line class covers the full continuum of skills needed to impact environmental change from seeing, to determining, to influencing, to innovating. The curriculum progresses from basic spatial concepts to complex ideas, with the end-goal being the ability to answer the questions: How can I make this a better place? What change needs to happen?

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### HLTH ADMIN 203 Leadership: Healthcare Policy (3 Units) Fall, Spring

Instructor(s): Beth Mertz

Prerequisite(s): HLTH ADMIN 200A, HLTH ADMIN 200B,

**HLTH ADMIN 207A** 

Restrictions: enrollment in MS-HAIL program

This course examines key tenets of healthcare policy including regulation and licensure, education and deployment of the health workforce, public health systems, the legislative process and health legislation such as the Affordable Care Act, and basics about state and federal health programs including Medicare and Medicaid. Students will explore the environment outside an organizations vertical structure and examine supports and barriers to initiating structural change.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### HLTH ADMIN 204 Healthcare Economics, Policy, and Decision-making (3 Units) Winter, Summer

Instructor(s): Ryan Edwards

Prerequisite(s): Hlth Admin 200A\r\nHlth Admin 200B\r\nHlth Admin

207A\r\n

Restrictions: Enrollment in Healthcare Administration and Interprofessional Leadership Program

This course builds on MHA200B to provide a deeper understanding of healthcare economics, policy, and decision-making. Explores production of health, incentives faced by healthcare organizations, health insurance pricing, health insurance and industry structure in the US, and healthcare costs. Links are made between course content and role of leaders to increase the value of services, as well as how the organization and financing of systems impact management, strategy, and innovation.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# HLTH ADMIN 205 Healthcare Quality, Safety and Interprofessional Dynamics (3 Units) Fall, Spring

Instructor(s): Bob Wenz

Prerequisite(s): HLTH ADMIN 200A, HLTH ADMIN 200B,

**HLTH ADMIN 207A** 

Restrictions: enrollment in MS-HAIL program

Course prepares students to intentionally and effectively work together to build safer and better, person-centered healthcare systems. Topics include frameworks, core principles and values of team-based care, and managing organizational influences such as workforce, risk, reliability and patient engagement to assure safe care. Students will develop and evaluate strategies for managing priorities at the junction of population health, economic and political interests, and forces for social change.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### HLTH ADMIN 206 Strategic Management of Human Resources (3 Units) Winter, Summer

Instructor(s): Mia Basic

Prerequisite(s): HLTH ADMIN 200A, HLTH ADMIN 200B,

**HLTH ADMIN 207A** 

Restrictions: Enrollment in Healthcare Administration and

Interprofessional Program

MHA206 examines management issues (planning, organizing, directing, staffing, leading, controlling) through the Human Resource Management lens. Strategic management of job analysis, recruitment, retention, performance review and succession planning are investigated. Emphasis is placed on equity and inclusion in the workplace, compensation, labor relation concepts, regulations and laws. Case studies, small group work, short papers and discussion boards are utilized in the learning environment.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

# HLTH ADMIN 207A Essential Leadership: Foundations for Effective Performance (3 Units) Fall, Spring

Instructor(s): Lauren Williams

Prerequisite(s): none

Restrictions: None

Activities: Seminar

This first on-campus course introduces core concepts and principles of leadership, teamwork, change management, creativity and innovation. Using standardized assessment inventories, students participate in activities to strengthen self-knowledge and skill acquisition for leadership development and professional advancement. Group work and structured sessions initiate their evidence-based project. Preparation for the 2-day session includes online pre-work throughout the quarter.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### HLTH ADMIN 207B Leadership in Action: Inquiry to Innovation (3 Units) Winter, Summer

Instructor(s): Kathryn Wise

Prerequisite(s): 200A, 200B, 207A. All other courses in the program must be completed prior to enrolling in this course or taken concurrently with this course. Must be in good academic standing prior to enrolling in this

Restrictions: Enrollment in Healthcare Administration and

Interprofessional Leadership Program

Activities: Seminar

In this culminating course, students will demonstrate core program competencies through the integration and application of leadership, social, economic and theoretical underpinnings of interprofessional and healthcare administration. Having advanced to candidacy for conferral of the Master of Science degree, students will present their evidence-based capstone project in four formats: scholarly papers, a podium and a poster presentation, and an advocacy discussion.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# HLTH ADMIN 401 Administrative Practicum (3 Units) Winter, Summer

Instructor(s): Mike Taigman, Marianne Hultgren

 $Prerequisite (s): HIth \ Admin \ 200A \ r\ hHIth \ Admin \ 200B \ r\ hHIth \ Admin \$ 

207A

Restrictions: Enrollment in Healthcare Administration and

Interprofessional Leadership Program

Activities: Fieldwork

The course is the first in a series of two devoted to the successful completion of the student's evidence-based, process improvement project. Each student will thoroughly critique, develop and implement his/her capstone proposal that will be evaluated in the following quarter. The practicum will include individual and group sessions with faculty coaches, a mentored practice of leadership skills, and application of learned material from the foundation courses.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# HLTH ADMIN 402 Administrative Practicum (3 Units) Fall, Spring, Summer

Instructor(s): Mike Taigman
Prerequisite(s): HLTH ADMIN 401

Restrictions: Enrollment in Healthcare Administration and

Interprofessional Leadership program

Activities: Fieldwork

The goals of this second practicum are twofold: 1. continue building a professional identity as a healthcare leader in the work setting under supervision of a mentor and in sessions with faculty coaches; 2. implement and evaluate an interprofessional evidence-based project. Course includes an online component, mentored practice of leadership skills, and application of learned materials from foundation courses. Faculty coaches support students in leadership and project development goals.

School: Graduate Division

**Department:** Healthcare Administration Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# **History of Health Sciences (HIST HL SC)**

#### HIST HL SC 200A Introduction to the History of Health Sciences (2-4 Units) Fall

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Project, Discussion

This introductory course is a general survey of the history of Western medicine from antiquity to the early nineteenth century for students entering the M.A. and Ph.D. programs in the History of the Health Sciences. It explores key conceptual developments and practices of the past, situating healing systems within their cultural and social contexts. The course has a strong historiographical emphasis, comparing and contrasting approaches to episodes in the history of medicine.

School: Graduate Division

**Department:** History Of Health Sciences Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# HIST HL SC 200B Introduction to History of Health Sciences (2-4 Units) Fall, Winter

Instructor(s): Staff
Prerequisite(s): 200A

Restrictions: None.

Activities: Lecture, Project, Discussion

Continuation of 200A. This course presents a general survey from 1800 to the present, with the primary focus on Europe and the US. Topics include: the rise of scientific medicine; the significance of germ theory; the development of medical therapeutics and technologies; the growth of health care institutions; the evolution and specialization of the medical profession.

School: Graduate Division

**Department:** History Of Health Sciences Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

# HIST HL SC 201A Disease and the Social Order from Black Death to Covid (2-4 Units) Fall, Spring

Instructor(s): Dorothy Porter
Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Project, Discussion

The course explores the comparative impact of disease upon European and North American societies. It will concentrate on the historical junctures at which diseases occurred; unravel the various levels of meaning which surrounded them in terms of their social, moral, and political interpretations; and analyze the patterns of response to them and discuss their historical consequences.

School: Graduate Division

Department: History Of Health Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U
(Satisfactory/Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### HIST HL SC 203A The Historiography of Medical History (4 Units) Fall

Instructor(s): Aimee Medeiros, Laurel Waycott

Prerequisite(s): none

Restrictions: none

Activities: Lecture, Seminar, Independent Study

The aim is to introduce students to the history of history of medicine research, writing and practice. It also serves as an introduction to the professionalization process.

School: Graduate Division

Department: History Of Health Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### HIST HL SC 203B Introduction to Theory and Historiography (4 Units) Winter

Instructor(s): Dorothy Porter
Prerequisite(s): none

Restrictions: none

Activities: Lecture, Seminar, Independent Study

This Course examines elements of philosophical theory critically relevant to contemporary historiographical and theoretical discourses in the History of the Health Sciences from Kant to Derrida.

School: Graduate Division

Department: History Of Health Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### HIST HL SC 204A Research Methods in the History of Health Sciences (3 Units) Spring

Instructor(s): Brian Dolan, Dorothy Porter, Aimee Medeiros Prerequisite(s): HH200A and HH200B

Restrictions: None.

Activities: Lecture, Independent Study

Introduction to medical historiography, research methodologies, and the craft of interpreting and writing medical history. Discussion of different historical approaches employed in writing history, including intellectual, social, cultural, feminist perspectives, and the sociology of knowledge. Survey of bibliographic tools and training in the methods of oral history.

School: Graduate Division

Department: History Of Health Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### HIST HL SC 204B Research Methods in the History of Health Sciences (1 Units) Fall, Winter

Instructor(s): Brian Dolan, Dorothy Porter, Aimee Medeiros

Prerequisite(s): HIST HL SC 204A

Restrictions: None
Activities: Project

Conclusion of 204A. Students will finish and submit their research projects for evaluation and feedback.

School: Graduate Division

Department: History Of Health Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# HIST HL SC 205 The Science of A Historical Archive (4 Units) Spring

Instructor(s): Aimee Medeiros

Prerequisite(s): Instructor approval is required

Restrictions: Instructor approval is required

Activities: Lecture, Fieldwork, Project, Web work

This course provides on overview of the archival science. Emphasis will be made on the theory and methodology of historical archival research. Coursework includes review of literature and leading group discussions of relevant technologies.

School: Graduate Division

Department: History Of Health Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### HIST HL SC 213 Disability History (4 Units) Fall

Instructor(s): Aimee Medeiros Prerequisite(s): None

Restrictions: None

Activities: Lecture, Seminar, Independent Study

This course examines disability's presence in the past and its absence from the historiography. We will explore the development of disability as an administrative category as it relates to nation-building, medicine, international relations, and citizenship.\r\nWe will also explore the history of disability as a lived-experience. Topics include: the history of the 'normal' body, the development of the Veteran's hospital system, and the relationship between reproductive rights and disability.

School: Graduate Division

Department: History Of Health Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

**Course Grading Convention:** Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### HIST HL SC 215 Crafting the Dissertation Prospectus (2 Units) Fall, Spring

Instructor(s): Brian Dolan
Prerequisite(s): None

Restrictions: None

Activities: Lecture, Seminar, Independent Study, Project

This course, based on a combination of lectures, seminar presentations, and archival investigation, guides students through the process of developing the dissertation prospectus. This document outlines and describes the dissertation topic, hypothesis, provides literary meta-analysis, describes archival sources to be investigated, and proposes the chapter organization. Students will provide peer-review critique of each prospectus.

School: Graduate Division

Department: History Of Health Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# HIST HL SC 230 Qualifying Exam Research (2 Units) Fall, Spring

Instructor(s): Brian Dolan
Prerequisite(s): None

Restrictions: None

Activities: Independent Study, Project

This four week course, consisting of independent study and written projects, is required for second year History of Health Sciences students to conduct specialty topic research that culminates in the oral exam.

School: Graduate Division

Department: History Of Health Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### HIST HL SC 250 The Anatomy of an Archive (4-5 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor

Restrictions: none

Activities: Lecture, Project, Discussion

This course provides on overview of the archival science, the emphasis will be made on the theory, methodology, and best practices of archival research, arrangement and description. Coursework includes review of literature and discussion of relevant technologies.\r\n\r\n\r\nUpon completion of this course, students will master comprehension of archival concepts, become familiar with the archival terminology, understand the principles, history, and theory of archives.

School: Graduate Division

Department: History Of Health Sciences Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# HIST HL SC 297 Special Study (1-4 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor

Restrictions: none

Activities: Project, Discussion

Supervised independent study intended to provide directed reading in subject matter not covered in scheduled seminar offerings.

School: Graduate Division

**Department:** History Of Health Sciences Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

is this a web based offine course: NO

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# HIST HL SC 299 Dissertation (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Advancement to candidacy and permission of the graduate advisor

Restrictions: Advancement to candidacy and permission of the graduate advisor

For graduate students engaged in writing the dissertation for the PhD degree.

School: Graduate Division

Department: History Of Health Sciences Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## **Implementation Science (IMPLMT SCI)**

### IMPLMT SCI 241 Designs for Intervention Research in Real-World Settings (2 Units) Spring

Instructor(s): Margaret Handley, Starley Shade
Prerequisite(s): some familiarity with study designs

Restrictions: none

Activities: Lecture, Seminar, Project

Provides a foundation of the main components of alternatives to individual randomized control trials that can be used to evaluate interventions placed in real world settings. For each design covered in the class—randomized (cluster-randomized, stepped-wedge randomized trials) and quasi-experimental designs (pre-post and interrupted time series) students will assess: what are the key features, common pitfalls, and strategies to improve internal and external validity. Cross-listed as IMS 241.

School: Graduate Division

**Department:** Clinical Research Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### IMPLMT SCI 242 Progam Evaluation in Clinical and Public Health Settings (2 Units) Winter

Instructor(s): Janet Myers
Prerequisite(s): None

Restrictions: Enrollment is not permitted if the cross-listed course IMS

242 or EPI 242 have been taken and passed.

Activities: Project, Web work

This course provides training in evaluating a health program or strategy implemented in a clinical or public health setting. Scholars will develop an evaluation plan that uses logic models and evaluation frameworks (e.g., RE-AIM) to guide the systematic collection of information to understand if and how a program/implementation strategy is meeting its stated goals and objectives; improve program/implementation strategy effectiveness; and/or make decisions about future programming.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### IMPLMT SCI 243 Human Centered Design (2 Units) Fall

Instructor(s): Meghana Gadgil

Prerequisite(s): Training or experience in public health, quality improvement, or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Enrollment is not permitted if the cross-listed course IMS 243 or EPI 243 have been taken and passed.

Activities: Fieldwork, Web work

Human-centered design is a discipline incorporating the human needs perspective to solve problems in public health and medicine. As an introduction to the practice, learners will follow a service design process applying methods focused on building empathy, translating needs into solution requirements, creative ideation, prototype development and testing, and planning for implementation. Broad implementation science principles and approaches will be overlaid to show intersection points.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### IMPLMT SCI 245 Introduction to Implementation Science: Theory and Design (2 Units) Fall, Spring

Instructor(s): Adithya Cattamanchi, Priya Shete

Prerequisite(s): Training or experience in clinical research, public health, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: The course cannot be repeated for credit - enrollment is not permitted if the in-person version of the course (cross-listed as EPI 245 or IMS 245) has been taken and passed.

Activities: Web work

This online course provides a foundation for designing and evaluating strategies to accelerate the translation of evidence into practice, policy, and public health. Concepts introduced include community engagement, behavior change theory, and implementation strategy design and evaluation frameworks, and study design. In addition to didactic work, scholars are guided through the creation of a protocol aimed towards facilitating uptake of their chosen health intervention.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/
Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

#### IMPLMT SCI 246 Designing Individual-Level Implementation Strategies (2 Units) Winter

Instructor(s): Matthew Spinelli, Emilia Demarchis
Prerequisite(s): Training or experience in clinical research, public health,
quality improvement or health care organization leadership. Exceptions
for these prerequisites may be made with the consent of the course

director

Restrictions: The course cannot be repeated for credit - students who take and pass EPI 246 are not permitted to take this course.

Activities: Project

This course provides training in developing interventions targeting individual health behavior change, while also focusing on intervention design components that target multiple determinants: individual, interpersonal and system/community/structural level. Students use principles of behavior change theories and implementation-related frameworks applied to their own work to solidify course concepts. Additional assignments involve case studies analysis online discussions with class colleagues.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/
Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### IMPLMT SCI 247 Designing Interventions to Change Organizational Behavior (2 Units) Spring

Instructor(s): Laura Schmidt

Prerequisite(s): Experience working/volunteering within an organization. Ideally, this will be a healthcare organization you work in now or if not, then in the past.

Restrictions: Enrollment is not permitted if IMS 247/EPI 247 has been taken and passed.

Activities: Project, Web work

This course surveys a range of translational tools at the health care system level that you can use to promote the adoption of evidence-based medicine by providers and delivery systems. Learn strategies for change in the broader context of sociological theories of organizational behavior and policy implementation. Focus your learning on translational tools that can be used by stakeholders outside of health care organizations to promote the adoption of clinical innovations within organizations.

School: Graduate Division

**Department: Clinical Research Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### IMPLMT SCI 248 Community-Engaged Research (2 Units) Fall

Instructor(s): Sara Ackerman

Prerequisite(s): Training or experience in public health, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Enrollment is not permitted if EPI 248 has been taken and passed.

Activities: Web work

This course provides training in the theory and practice of collaborating with patients, members of the public, and community-based organizations in health research, intervention design and implementation. Multiple engagement strategies are introduced through readings, guest speakers, case studies, and online discussions. Participatory research methods will be applied to trainees' ongoing or planned projects in order to adapt health interventions to real-world contexts.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### IMPLMT SCI 249 Translating Evidence Into Policy (2 Units) Spring

Instructor(s): Beth Griffiths

Prerequisite(s): The course is focused on domestic (US) health policy and requires a basic understanding of government organizational structures (executive, legislative and judicial branches)

Restrictions: Enrollment is not permitted if the cross-listed course EPI 249 or IMS 249 have been taken and passed.

Activities: Project, Web work

This course will focus on the policy process and strategies for collecting and disseminating research findings to inform and influence that process. The course will be taught through a series of videos and guided readings delivered by faculty with extensive experience at the federal, state, and local level in health care policy.

School: Graduate Division

**Department:** Epidemiology And Translational Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### IMPLMT SCI 267 Qualitative Methods (2 Units) Winter, Spring

Instructor(s): Sara Ackerman, Kim Koester

Prerequisite(s): Training or experience in public health, epidemiology, clinical research, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Intended for students in the MAS or ATCR programs. Space permitting, individuals not enrolled in MAS/ATCR may take this course. Enrollment is not permitted if EPI 267 (in-person version) has been taken and passed.

Activities: Seminar, Project

This course provides training in the use of qualitative methods in clinical, health services and implementation research. Through readings, lectures, case studies, and online discussions, students will gain basic skills in conducting interviews, focus groups, observations, and qualitative data analysis. The course will also cover sampling and recruitment strategies, working with theoretical frameworks, and publishing qualitative and mixed methods findings. Cross-listed as EPI 267.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U
(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Letter Grade, P/NP (Pass/Not Pass) or S/U
(Satisfactory/Unsatisfactory)

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

## Interdepartmental Studies (INTERDEPT)

#### INTERDEPT 113A Foundational Sciences in Foundations 2 (Winter) (1.5 Units) Winter

Instructor(s): Sam Brondfield Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Lecture, Seminar, Independent Study

This SOM Bridges Curriculum course brings students together every other week during the year-long Foundations phase to reinforce and advance their understanding of foundational science and develop health care testing knowledge. Students step out of concurrent clinical rotations to participate in this course. FS-in-F2 day components are: Family & Community Medicine seminar, foundations of high-value healthcare and Foundational Sciences curriculum.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### INTERDEPT 113B Foundational Sciences in Foundations 2 (Spring) (1.5 Units) Spring

Instructor(s): Sam Brondfield, Marta Margeta, Raga Ramachandran Prerequisite(s): None

Restrictions: Third year medical students in Foundations 2

Activities: Lecture, Seminar, Independent Study

This SOM Bridges Curriculum course brings students together during Foundations 2 to advance their understanding of foundational science and develop healthcare testing knowledge. Students step out of concurrent clinical rotations to participate in this course. Learning methods will vary by session topic, including but not limited to presentations, problem-based learning and simulation. IDS 113B components are Appropriate Use of Diagnostic Tests and Foundational Sciences in Foundations 2.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: No **Is this a web-based online course?** Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 113C Foundational Sciences in Foundations 2 (Summer) (1.5 Units) Summer

Instructor(s): Sam Brondfield, Marta Margeta, Raga Ramachandran Prerequisite(s): None

Restrictions: Third year medical students in Foundations 2

Activities: Lecture, Seminar, Independent Study

This SOM Bridges Curriculum course brings students together during Foundations 2 to advance their understanding of foundational science and develop healthcare testing knowledge. Students step out of concurrent clinical rotations to participate in this course. Learning methods will vary by session topic, including but not limited to presentations, problem-based learning and simulation. IDS 113C components are Appropriate Use of Diagnostic Tests and Foundational Sciences in Foundations 2.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### INTERDEPT 113D Foundational Sciences in Foundations 2 (Fall) (1.5 Units) Fall

Instructor(s): Sam Brondfield, Marta Margeta, Raga Ramachandran Prerequisite(s): None

Restrictions: Third year medical students in Foundations 2

Activities: Lecture, Seminar, Independent Study

This SOM Bridges Curriculum course brings students together during Foundations 2 to advance their understanding of foundational science and diagnostic tests. Students step out of concurrent clinical rotations to participate in this course. Learning methods will vary by session topic, including but not limited to presentations, problem-based learning and simulation. IDS 113D components are Appropriate Use of Diagnostic Tests and Foundational Sciences in Foundations 2.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 115 Coda (3 Units) Spring

Instructor(s): Bradley Monash

Prerequisite(s): 4th year standing in medical school.

Restrictions: 4th year standing in medical school.

Activities: Lecture, Seminar, Independent Study, Workshop, Lab skills

This course is intended to serve as a springboard from medical school to internship. The approach to common clinical, ethical, and social situations encountered during internship will be covered through a combination of lectures, seminars, small groups, team teaching and hands-on skills sessions.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **INTERDEPT 117A Physician Identity (PI) Week 5 (1.5 Units) Spring**

Instructor(s): Noriko Anderson, Margaret Lin-Martore Prerequisite(s): Foundations 1 courses or equivalent

Restrictions: Medical Students in Foundations 2

Activities: Lecture, Seminar, Web work, Workshop

Physician Identity Weeks are focused on developing each medical students identity as a physician. Each week will include activities designed to help students consolidate and build upon learning during intervening portions of the curriculum. The weeks provide space for reflection and professional growth, opportunities to work with peers, coaches, and other facilitators, and time to pursue activities related to career exploration as well as para-curricular activities of interest.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **INTERDEPT 117B ARCH Week 6 (1.5 Units) Summer**

Instructor(s): Margaret Lin-Martore, Noriko Anderson

Prerequisite(s): none

Restrictions: Medical Students in Foundations 2 and Career Launch

Activities: Lecture, Seminar, Clinical

This SOM Bridges Curriculum series is a sequence of one week courses taught in intervals throughout Foundations 2 and Career Launch. Students participate in formative and summative assessments, review performance data holistically, reflect on professional identity formation, meet with Coaches to develop learning plans, and engage in wellness activities with peers. Sessions are designed to address students' learning needs at this point in the curriculum.

School: Medicine **Department:** Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 117C ARCH Week 7 (1.5 Units) Spring

Instructor(s): Margaret Lin-Martore, Noriko Anderson

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2 and Career Launch

Activities: Lecture, Seminar, Independent Study

This SOM Bridges Curriculum series is a sequence of one week courses taught in intervals throughout Foundations 2 and Career Launch. Students participate in formative and summative assessments, holistically review performance data, reflect on professional identity formation, meet with Coaches to develop learning plans, and engage in wellness activities with peers.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **INTERDEPT 117D ARCH Week 8 (1.5 Units) Summer**

Restrictions: Medical Students in Foundations 2 and Career Launch

Instructor(s): Noriko Anderson, Margaret Lin-Martore Prerequisite(s): None

Activities: Lecture, Seminar, Independent Study

This SOM Bridges Curriculum series is a sequence of one week courses taught in intervals throughout Foundations 2 and Career Launch. Students participate in formative and summative assessments, holistically review performance data, reflect on professional identity formation, meet with Coaches to develop learning plans, and engage in wellness activities with peers.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### INTERDEPT 118 Deep Explore (1-16 Units) Fall, Winter, Spring, Summer

Instructor(s): Rita Redberg, Christopher StewartPrerequisite(s): Designing Clinical Research (New course; Course approval form in progress at present).

Restrictions: Career Launch students who have completed a thesis at UCSF and OMFS students will not be required to take Deep Explore

Activities: Project

This will be a mentored experience in research or scholarship for students in Career Launch. It will be required of students who have not completed a thesis (e.g. Masters, PhD) while at UCSF. A wide range of research topics is expected. The Deep Explore months may be split among multiple quarters with every student making an individual schedule and multiple sites, including off-campus sites, will be utilized.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### INTERDEPT 119 Introduction to Career Launch (3 Units) Winter

Instructor(s): Bradley Monash, Patricia Cornett

Prerequisite(s): None

Restrictions: Medical students in Career Launch

Activities: Lecture, Seminar, Independent Study

This course will provide students an introduction to the clinical curricular components of Career Launch and important clinical curriculum in support of their advanced rotations and their further development towards physicianship. Students will participate in a mixture of didactic and small group learning activities, which will address healthcare needs in all clinical settings (home, ambulatory, inpatient, intermediate/longterm care) as appropriate.

School: Medicine
Department: Medicine

Repeat course for credit? No

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No

### INTERDEPT 120 Designing and Conducting Research (2 Units) Winter

Instructor(s): Rebecca Graff

Prerequisite(s): Foundations EBPS Core Inquiry Curriculum IDS121A

Restrictions: none

Activities: Lecture, Seminar

Designing and Conducting Research (DCR) is an introduction to the process of conceiving and conducting scholarly projects. Students will be exposed to overarching concepts and essential vocabulary for interpreting and executing scholarly work. Weekly coursework will culminate in the creation of a proposal for the Deep Explore project.

School: Medicine

**Department:** Epidemiology And Biostatistics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **INTERDEPT 121A Foundations 1 (9 Units) Fall**

*Instructor(s):* Marieke Kruidering Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Clinical, Independent Study, Conference

This Bridges Curriculum course includes the emerging science of health systems and enduring sciences of structural & microscopic anatomy, cell biology, immunology, genetics, pharmacology, & pathology. It begins the Clinical Microsystem Clerkship (CMC) experience and initiates the Core Inquiry Curriculum (CIC), introducing critical analysis of medical science advances.

School: Medicine

Department: Cellular And Molecular Pharmacology
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **INTERDEPT 121B Foundations 1 (20 Units) Fall**

Instructor(s): Dana Rohde Prerequisite(s): none

Restrictions: none

Activities: Lecture, Clinical, Independent Study, Conference

This 2nd Bridges Curriculum course has content in CV, pulmonary, and hematology medicine. It explores justice and advocacy in medicine through a social and behavioral sciences lens. It continues an immersive experience in a longitudinal Clinical Microsystem Clerkship (CMC) and a longitudinal Core Inquiry Curriculum (CIC). The course is split by Physician Identity (PI) Week 1, which has structured activities for students to review their academic progress and create learning plans.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **INTERDEPT 121C Foundations 1 (18 Units) Winter**

Instructor(s): Tracy Fulton Prerequisite(s): none

Restrictions: No

Activities: Lecture, Clinical, Independent Study

This Bridges Curriculum course has content in renal, GI, and endocrine medicine. It explores justice and advocacy in medicine through a sociology, public health, and genetics sciences lens. It continues an immersive experience in a longitudinal Clinical Microsystem Clerkship (CMC) and a longitudinal Core Inquiry Curriculum (CIC).

School: Medicine

**Department:** Biochemistry And Biophysics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **INTERDEPT 121D Foundations 1 (12 Units) Spring**

Instructor(s): Luis Rubio Prerequisite(s): None

Restrictions: None

Activities: Lecture, Clinical, Independent Study

This SOM Bridges Curriculum course introduces the core foundational science content for immunology, rheumatology, microbiology, infectious diseases, leukemia, and lymphoma. It includes the longitudinal Clinical Microsystem Clerkship (CMC) and a longitudinal Core Inquiry Curriculum (CIC). The course is split by Physician Identity (PI) Week 3, which has structured activities for students to review their academic progress and create learning plans.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **INTERDEPT 122A Foundations 1 (11 Units) Fall**

Instructor(s): Naomi Stotland Prerequisite(s): None

Restrictions: Medical Student in Foundations 1 phase of the curriculum.

Activities: Lecture, Clinical, Independent Study

This Bridges Curriculum course focuses on health aging and development. It introduces the core foundational science content for reproduction, pregnancy, infancy, gynecology, and urology, and common issues in geriatrics. It includes the longitudinal Clinical Microsystem Clerkship (CMC) and a longitudinal Core Inquiry Curriculum (CIC).

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### INTERDEPT 122B Foundations 1 (12 Units) Fall

Instructor(s): S Andrew Josephson

Prerequisite(s): None

Restrictions: Medical Student in the Foundations 1 phase

Activities: Lecture, Clinical, Independent Study

This Bridges Curriculum course focuses on the structure and function of the brain, nervous systems and movement systems. It includes core foundational science content in neuroanatomy, neurophysiology, neuropharmacology, and applicable areas of social and behavioral science. It also includes the longitudinal Clinical Microsystem Clerkship (CMC), a longitudinal Core Inquiry Curriculum (CIC) and the fourth Physician Identity (PI) Week.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **INTERDEPT 122C Foundations 1 (4 Units) Fall**

Instructor(s): Sirisha Narayana
Prerequisite(s): None

Restrictions: Medical Student in Foundations 1 phase of the curriculum

Activities: Lecture, Clinical, Independent Study

This Bridges Curriculum course focuses on clinical reasoning at the individual patient level. It introduces an approach for communicating critical thinking to others and generating a prioritized differential diagnosis based on an effective problem representation. It includes the longitudinal Clinical Microsystem Clerkship (CMC) and the longitudinal Core Inquiry Curriculum (CIC).

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

is this all interprofessional Education (if E) course: No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 123A Inquiry Immersion 1 (3 Units) Winter

Instructor(s): Nilika Singhal, Susan Miller

Prerequisite(s): N/A

Restrictions: No

Activities: Lecture, Independent Study

This Inquiry Immersion course within the Bridges Curriculum is a twoweek block that includes foundational didactics, a selective mini-course, and scholarship skill-building.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 124A Community Engagement Rotation (CER) (6 Units) Fall, Spring

Instructor(s): Beth Griffiths, Naomi Wortis

Prerequisite(s): None

Restrictions: Fourth-year medical students

Activities: Lecture, Seminar, Clinical, Project

In this course, students will integrate and apply learning from the entire Bridges curriculum to serving the needs of the community. Students will spend the majority of their time at a chosen community-based site(s) with the opportunity to contribute to a community-engaged project and/or advocate for policy change, while also providing interdisciplinary clinical and/or preventive care. Weekly didactics will include guest speakers, small group exercises, site visits, and reflections.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### INTERDEPT 124B Community Engaged Project Work (2-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Beth Griffiths, Naomi Wortis

Prerequisite(s): None

Restrictions: Medical students enrolled in the Foundations 2 and/or

Career Launch phase of the Bridges curriculum.

Activities: Fieldwork, Project

In this course, students will integrate and apply learning from the entire Bridges curriculum to serving the needs of the community. Students will spend the majority of their time at a chosen community-based site(s) with the opportunity to contribute to a community-engaged project and/or advocate for policy change, while also providing interdisciplinary clinical and/or preventive care. Students will complete community-engaged project work longitudinally in response to public health needs.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### INTERDEPT 125 Specialty Practice Ambulatory SubinterNship (SPAN) (1-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Katherine Lupton

Prerequisite(s): None

Restrictions: Medical students in Career Launch

Activities: Clinical

This course provides students a longitudinal ambulatory clinical experience in conjunction with their Career Launch clinical rotations. Students work in the outpatient clinic 1:1 with a faculty preceptor longitudinally over the 61 weeks of Career Launch in a specialty/ subspecialty of their choosing.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

## INTERDEPT 130.02 CIEx - Subacute Care of Complex and Older Adults (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Michi Yukawa
Prerequisite(s): None

Restrictions: Medical Students only

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will gain knowledge and skills serving as a member of a highly functional interprofessional team caring for medically complex patients at a skilled nursing facility.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.03 CIEx - Eating Disorders (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sara Buckelew Prerequisite(s): None

Restrictions: None

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The UCSF Adolescent and Young Adult Eating Disorder Program is a unique clinical and research program that is a partnership between the Department of Pediatrics and the Department of Psychiatry.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## INTERDEPT 130.05 CIEx - Musculoskeletal Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder
Prerequisite(s): none

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This elective was designed to provide a comprehensive review of common musculoskeletal disease processes by those physicians who treat them.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# INTERDEPT 130.06 CIEx - Medicine Consult & Orthopaedic Comanagement Service (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Abhishek Karwa Prerequisite(s): Medicine 110

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The elective builds on general medicine skills learned in the outpatient and inpatient setting, and allows students to apply these skills to assist in the care of patients with acute or chronic medical comorbidities.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### INTERDEPT 130.08 CIEx - Demystifying Pathology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Marta Margeta, Raga Ramachandran
Prerequisite(s): None

Restrictions: medical students in F2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will learn how effective use of diagnostic and consultative pathology services positively impacts clinical care. Students will participate in surgical pathology cases from specimen receiving to report completion, cytology, and autopsy.

School: Medicine

Department: Pathology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## INTERDEPT 130.09 CIEx - Multidisciplinary Head and Neck Oncology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Chase Heaton
Prerequisite(s): None

Restrictions: Third-year medical students.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Successful treatment of head and neck cancer patients requires a multidisciplinary team focused on providing coordinated, individualized care. Students in this CIEx will integrate into this multidisciplinary team.

School: Medicine

**Department: Radiation Oncology** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

## INTERDEPT 130.10 CIEx - Integrative Care for Autism & Neurodevelopment (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Tomoya Hirota
Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provides medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The UCSF Center for ASD and other NDDs is a multidisciplinary program dedicated to improving understanding, treatment, and well-being for people with autism spectrum disorder and other neurodevelopmental disorders.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## INTERDEPT 130.11 CIEx - Care for Adolescents & Adults with Disabilities (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Clarissa Kripke
Prerequisite(s): None

Restrictions: medical students in F2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be mentored by a clinician who provides care to medically fragile patients with developmental disabilities in the community. Services will be delivered in a number of settings, including group homes, clinics, and community sites.

School: Medicine

**Department:** Family And Community Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### INTERDEPT 130.12 CIEx - Enhancing Antibiotic Expertise (3 Units) Fall, Winter, Spring, Summer

Instructor(s): David Sears
Prerequisite(s): None

Restrictions: Medical students in F2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will learn to prescribe appropriate antibiotics for common infections in multiple settings; gain knowledge of how the microbiology lab conducts resistance testing; and learn how to control the spread of drug resistant pathogens.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.13 CIEx - Critical Care Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): James Frank
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The SFVA ICU is the only closed-format, mixed med/surg/cardiac ICU at UCSF. Students will see patients and be members of an interprofessional ICU team. They will contribute to a QI project and present their findings at the end of the rotation.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# INTERDEPT 130.14 CIEx - Children's Oral Health for Primary Care Providers (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Brent Lin
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will engage with pediatric patients in a dental setting to identify and stratify patients' urgency of needs. Students will conduct oral health and risk assessments, anticipatory guidance, and basic preventive care.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.15A CIEx - Career Choice Elective - KLIC-East Bay (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Tal Ziv
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participating in the UCSF-Kaiser Longitudinal Integrated clerkship program will complete this immersive elective in a specialty of interest with the goal of further clarifying potential career path options.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.15B CIEx - Career Choice Elective - KLIC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Lin

Prerequisite(s): Kaiser San Francisco students

Restrictions: Medical students in F2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participating in the UCSF-Kaiser Longitudinal Integrated clerkship program will complete this immersive elective in a specialty of interest with the goal of further clarifying potential career path options.

School: Medicine

**Department:** Emergency Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### INTERDEPT 130.17 CIEx - Career Choice Elective - PISCES (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Joseph Sullivan
Prerequisite(s): PISCES student

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will explore an area of career interest in a specialty of choice. The student will identify a faculty mentor or mentors and work with faculty mentor(s) to design a clinical immersion experience that exposes the student to the specialty.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## INTERDEPT 130.18 CIEx - Clinical Reasoning Focused Skill-Building Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Susan Wlodarczyk

Prerequisite(s): None

Restrictions: Foundations 2 students

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This elective will allow learners to work with residents and faculty to practice formulating differential diagnoses and treatment plans for patient problems, and reflect on how these may change based on history, physical, and diagnostic tests

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.19 CIEx - Model SFGH Community Health (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Katherine Brooks, Alex Logan

 $\label{preconstruction} Prerequisite(s): Students \ must be enrolled in the \ Model \ SFGH \ clerkship$ 

program.

Restrictions: Medical students in F2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students gain insight into the roles of community organizations in promoting health for underserved patients, through participation in site visits to health care settings such as methadone clinic, jail or prison health, and homeless out reach.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Conding Conventions P/ND (Page (Not Page) or S/II (Setisfactor)

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.20A CIEx - Prenatal and Pediatric Genetics (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Teresa Sparks, Allison Tam

Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be provided with an overview of clinical genetics services at UCSF and gain experience in Adult and Cancer Genetics clinics, and the Genomic Medicine Lab.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### INTERDEPT 130.20B CIEx- Adult and Cancer Genetics (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Joyce So, Marta Sabbadini

Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. In Prenatal & Pediatric Genetics, students have opportunities to attend ultrasound and prenatal diagnosis clinics, Fetal Treatment Center clinics, Pediatric Genetic Clinics and Maternal-Fetal Medicine/Genetics consults.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### INTERDEPT 130.21 CIEx - Surgical Subspecialties - PISCES (3 Units) Fall, Winter, Spring, Summer

*Instructor(s)*: Maria Wamsley, Joseph Sullivan Prerequisite(s): PISCES students only

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students are paired with a preceptor in one of four surgical specialties (Orthopedics, Otolaryngology, Neurology, or Ophthalmology) and provide patient care in both the clinic setting and OR in order to understand the full continuum of care.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.22 CIEx - Physician Scientist Clinical/ Translational Experience (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Cathy Hoerth
Prerequisite(s): None

Restrictions: 3rd Year students in good Academic standing

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will identify their own faculty clinical mentor and discuss their goals with Dr. Lomen-Hoerth prior to enrolling in this CIEx.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Creding Compations D(ND (Does (Not Does)) or C/L/(Setisfactors/)

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.23 CIEx - Outpatient Cardiology Interprofessional Experience (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Crystal Zhou, Rose Pavlakos

Prerequisite(s): None

Restrictions: 3rd year student in good Academic standing

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The UCSF Division of Cardiology services 8 outpatient clinics in the Bay Area and they provide care to over 12,000 patients each year. Students will participate in direct patient care activities at Mission Bay & Parnassus.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 130.24 CIEx-Allergy/Immunology Subspecialty IPE Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Iris Otani, Hansen Ho

Prerequisite(s): None

Restrictions: 3rd and 4th year student in good Academic Standing

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course will provide learners with the opportunity to work closely with allergists/immunologists and to engage in unique interdisciplinary clinical programs with allergy/immunology and infectious disease specialists, pharmacists, and nurses.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

### INTERDEPT 130.30 CIEx - Introduction to Critical Care Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Melissa Coleman, Wendy Smith

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provides students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from their core clerkships. Students will rotate through the various ICUs to see the range of clinical care that is offered. Students will be members of an interprofessional team, participate in rounds, and observe procedures in the MICU, Surgical ICU, and Intensive Cardiac Care Unit.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### INTERDEPT 140.05A Health Professions Education Science (4-6 Units) Fall, Winter

Instructor(s): Katherine Lupton

Prerequisite(s): N/A

Restrictions: 4th year medical students. Maximum of 24 students.

Activities: Lecture, Seminar, Workshop

HPE can provide valuable knowledge and ongoing support to help students complete their Deep Explore projects and develop their education skills. Students will engage in a month long intensive course, and have the option to participate in an ongoing education community and skills development that will be counted towards Deep Explore requirements.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### INTERDEPT 140.05B Health Professions Education Science (2 Units) Winter, Spring

Instructor(s): Katherine Lupton Prerequisite(s): INTERDEPT 140.05A

Restrictions: 4th year medical students

Activities: Seminar, Workshop, Conference

HPE can provide valuable knowledge and ongoing support to help students complete their Deep Explore projects and develop their education skills. Students will participate in an ongoing education community and skills development that will enhance their educational scholarship skills.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 140.09 Health Equity and Racial Justice (HEAR Justice) (1 Units) Fall

Instructor(s): Bianca Argueza, Rosny Daniel

Prerequisite(s): None.

Restrictions: Open to UCSF learners from all schools and all levels of

training.

Activities: Fieldwork, Project, Workshop

The Health Equity & Racial Justice (HEAR Justice) course, formerly known as the STEP UP course, engages learners in conversations, skill building, & reflection around improving health outcomes for people of color, promoting equity in the medical workforce, and actively dismantling systems of oppression that perpetuate health inequities. Learners will explore issues of race, identity, privilege and bias through discussion, experiential learning, community engagement, and critical self-reflect.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### INTERDEPT 140.60 Expanding WikiProject Medicine (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Amin Azzam
Prerequisite(s): None

Restrictions: This elective will be available to 4th year medical students.

Activities: Lecture, Seminar, Lab skills

Wikipedia is the most widely used medical reference in the world. Since you and your patients use it so much, why not improve the quality of health information by learning to write for Wikipedia? This course will help you better understand the larger WP ecosystem, including Wikiprojects, Translators Without Borders, and the off line Wikipedia health app. Please note that the first two days and last day of the course are mandatory in-person attendance without exception.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### INTERDEPT 150 Pathways Inquiry Course (1.5-7.5 Units) Fall, Winter, Spring

Instructor(s): Kristina Sullivan, Bianca Argueza, Leo Liu, Edgar Pierluissi, Katherine Lupton, Carmen Cobb-Walch Prerequisite(s): Students need to be in Career Launch phase of the Bridges Curriculum (MS4).

Restrictions: This course is intended for medical students within the Career Launch phase of the curriculum and are not enrolled in Deep Explore, such as those in the JMP, MSTP, PRIME-US, and OMFS programs.

Activities: Lecture, Seminar, Project, Workshop

GME Pathways offers advanced knowledge, skills, mentoring, scholarship, and a community of practice for learners in a variety of career-oriented domains such as health professions education, global health, health equity & racial justice, clinical informatics & data science, and health systems leadership. Course contents include both immersive and longitudinal elements that comprise large group presentations, small group discussions, individual meeting with mentors and work-in-progress sessions.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

### INTERDEPT 170.06 Interprofessional Education Elective (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Maria Wamsley, Angel Kuo

Prerequisite(s): None

Restrictions: None

Activities: Project

This course is an elective to provide interprofessional learners the opportunity to collaborate on a project or participate in an experience to enhance their knowledge of the expertise of other healthcare professionals and improve their skills in interprofessional communication and collaboration. The course will be open to all classes/years of students in the schools of Medicine, Dentistry, Nursing, Pharmacy, and Physical Therapy.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course?  ${\tt Yes}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### INTERDEPT 181 Research Fellowship Elective (12 Units) Fall, Winter, Spring, Summer

Instructor(s): Lisa Berens, Stuart Gansky

Prerequisite(s): None

Restrictions: DDS and IDP students

Activities: Independent Study, Project, Workshop, Lab science

The Research Fellowship Elective offers UCSF dental students the opportunity to participate in intensive, hands-on mentored research. Students work closely with faculty mentors to conduct research on a topic of importance to dentistry. By working directly with leaders in research, students learn the methods, tools, and language of science, an introduction that propels many of them into careers in academia.

School: Dentistry

**Department:** Cell And Tissue Biology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 183 Summer Intensive (4-8 Units) Summer

Instructor(s): Jennifer Perkins
Prerequisite(s): None

Restrictions: First- and second-year DDS students.

Activities: Fieldwork, Independent Study

This summer intensive course is designed to provide students with the opportunity to increase their general dentistry competency to a level appropriate for their standing in the DDS Program. This course is required for any students who request financial aid during the summer quarter.

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### INTERDEPT 184 Dental Student Teaching Elective-Didactic/Preclinical (0.5-4 Units) Fall, Spring, Summer

Instructor(s): Staff
Prerequisite(s): none

Restrictions: Must receive permission from the instructor

Activities: Fieldwork

In this course, dental trainees will develop their competencies as educators through direct teaching as teaching assistants and/or development of educational materials and resources.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### INTERDEPT 185 Dental Student Teaching Elective-Clinical (0.5-4 Units) Fall, Winter

Instructor(s): Staff
Prerequisite(s): none

Restrictions: Must receive permission from the instructor

Activities: Fieldwork

In this course, dental trainees will develop their competencies as educators through direct teaching as teaching assistants and/or development of educational materials and resources. This teaching elective is focused on clinical teaching.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### INTERDEPT 186 Current Issues in Dental Research (0.5-1 Units) Fall, Winter, Spring

Instructor(s): Lisa Berens
Prerequisite(s): None

Restrictions: None

Activities: Lecture

Through lectures and group discussions participants will obtain knowledge in dental research. Current topics, research problems, research methodology encompassing basic, applied and clinical sciences will be presented. Faculty presentations of current research will integrate research findings with clinical practice.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### INTERDEPT 191 Advocacy Project Development for Anti-Oppressive Medicine (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Denise Davis, Denise Connor, Andre Campbell

Prerequisite(s): None

Restrictions: None Activities: Project

Students at UCSF School of Medicine make invaluable contributions to the clinical and educational environment. This course was designed to recognize and support students in their anti-oppressive advocacy and scholarly endeavors. Students will submit a brief proposal before enrolling. In this course, students will engage in learner-centered and culturally affirming project design, implementation, reflection and advising in the form of monthly works-in-progress sessions.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### INTERDEPT 194 Advanced Independent Study - Clinical (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): John Davis
Prerequisite(s): none

Restrictions: 3rd or 4th year medical student

Activities: Clinical

In this course, students will develop an individualized plan for advanced clinical skills development and work with a mentor to make progress towards these patient care goals. Course duration and unit allotment are determined at the discretion of the course directors.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### INTERDEPT 195 Consortium Interdisciplinary Research (0 Units) Fall, Winter, Spring

Instructor(s): Daniel Dohan

Prerequisite(s): Submission of fully approved SF Consortium application.

Restrictions: None.

This is a utility course intended to facilitate access to UCSF resources for UC Hastings students doing research on medical topics.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### INTERDEPT 196 Medical Student Teaching (3-15 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Restrictions: Approval of instructor

Activities: Fieldwork

In this course, medical students develop their competencies as medical educators through direct teaching and/or development of medical education materials and resources.

School: Medicine

Department: Cellular And Molecular Pharmacology
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### INTERDEPT 197 Group Supervised Study (1-12 Units) Fall, Winter, Spring, Summer

Instructor(s): John Davis, Marieke Kruidering

 $Prerequisite(s): INTERDEPT~121A-B-C-D \\ \ r \\ \ nINTERDEPT~122A-B-C \\ \ r \\$ 

\nINTERDEPT 123A

Restrictions: Students must get instructor approval

Activities: Independent Study

This course is a program of the foundational sciences that are most relevant to clinical practice and the USMLE Step 1 and/or Step 2 exams.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### INTERDEPT 197A Program of Learning for Lifelong Approach to Review (PILLAR) (1-12 Units) Winter, Spring

Instructor(s): Marieke Kruidering

Prerequisite(s): INTERDEPT 121A-B-C-D\r\nINTERDEPT 122A-B-C\r

\nINTERDEPT 123A

Restrictions: Students must get instructor approval.

Activities: Independent Study

This course is a structured program for select Medical students focused on the foundational sciences that are most relevant to clinical practice and the\r\nUSMLE Step 1 and/or Step 2 exams.

School: Medicine

Department: Cellular And Molecular Pharmacology
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### INTERDEPT 198 Intermediate Independent Study (1-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Students must get instructor approval

Activities: Independent Study

This course is a structured program of interdisciplinary study to take students through all of the basic, clinical, and social science material represented on the the USMLE Step 1 licensing exam.

School: Medicine

Department: Cellular And Molecular Pharmacology
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### INTERDEPT 199A Advanced Independent Study A (3 Units) Fall, Winter, Spring, Summer

Instructor(s): John Davis
Prerequisite(s): None

Restrictions: 4th Year Medicine

Activities: Independent Study

This two-week course involves interdisciplinary study to take students through the basic, clinical, and social science material relevant to USMLE Step 2 exam, the most advanced licensing exam that medical students are required to complete. After creating and receiving approval for a study plan based on their individualized performance data from assessments in the curriculum and the USMLE Step 1 exam, students will use the plan to guide their independent preparation for Step 2 CK.

School: Medicine

Department: Cellular And Molecular Pharmacology
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### INTERDEPT 199B Advanced Independent Study B (6 Units) Fall, Winter, Spring, Summer

Instructor(s): John Davis
Prerequisite(s): None

Restrictions: 4th year medicine; instructor approval required.

Activities: Independent Study

This four-week course involves interdisciplinary study to take students through the basic, clinical, and social science material relevant to USMLE Step 2 exam, the most advanced licensing exam that medical students are required to complete. After creating and receiving approval for a study plan based on their individualized performance data from assessments in the curriculum and the USMLE Step 1 exam, students will use the plan to guide their independent preparation for Step 2 CK.

School: Medicine

Department: Cellular And Molecular Pharmacology
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### INTERDEPT 204 Medical Science Training Program Related Study (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Aimee Kao
Prerequisite(s): None.

Restrictions: None.

Full time study in other Medical Science Training Program (MSTP) components at UCSF.

School: Graduate Division

**Department: Biomedical Sciences Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### INTERDEPT 205 Preparing for Health Professions School (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lucy Ogbu-Nwobodo, Sharon Youmans Prerequisite(s): perquisites vary according to program

Restrictions: 1. Students must be accepted into a UCSF Post Baccalaureate Program (medicine, dentistry, pharmacy).\r\n2. Students must have a Bachelors Degree.

Activities: Seminar, Project

This program prepares students from disadvantaged backgrounds for matriculation to professional schools. UCSF faculty lead classes on health disparities, ethics, cultural sensitivity, and care for underserved communities and serve as mentors for students. Students develop skills for future success in professional schools including MCAT/DAT preparation. Students develop research skills in a CQI project and lead seminars on health topics. Students take science classes at UCB-Extension.

School: Graduate Division

**Department:** Medicine Post-Baccalaureate

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### INTERDEPT 206 Medicine Post-Baccalaureate Program Related Study (0 Units) Summer

Instructor(s): Lucy Ogbu-Nwobodo

Restrictions: Students in the Medicine Post-Baccalaureate Program

Full time study in other Medicine Post-Baccalaureate components at UCSF

School: Graduate Division

**Department:** Medicine Post-Baccalaureate

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### INTERDEPT 482 Dental Implantology (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Akshay Govind, Arun Sharma, Guo-Hao Lin
Prerequisite(s): None.

Restrictions: DPG and 3rd- or 4th-year dental students only

Activities: Lecture

A didactic and collaborative elective course on dental implantology. The diagnostic, surgical, laboratory, restorative, periodontal, and maintenance phases of dental implant treatment will be presented. Course also include critical appraisal of current implant literature.

School: Dentistry

**Department:** Oral And Maxillofacial Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### **Laboratory Medicine (LAB MED)**

## LAB MED 130.01 CIEx - Introduction to Hematology and Hematopathology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Yi Xie
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will gain experience in clinical laboratory hematology and hematopathology, including a variety of different blood disorders.

School: Medicine

**Department:** Laboratory Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### LAB MED 140.01 Principles of Laboratory Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Zane Amenhotep, Alan Wu, Jeffrey Whitman Prerequisite(s): Two years of medical school.

Restrictions: 3rd or 4th year Medical Student in good standing

Activities: Seminar, Clinical

Students will learn principles of laboratory medicine through clinical consultations, seminars, sign-out sessions and rounds with ZSFG Laboratory Medicine Faculty. This elective covers general principles of test selection, the testing process, quality practices, result interpretation and the importance of clinical correlation. Students will gain exposure to subspecialty areas, such as, clinical chemistry, toxicology, hematology, microbiology, immunology, serology and transfusion medicine.

School: Medicine

**Department:** Laboratory Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### LAB MED 140.05 Cellular Therapy (2-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Elena Nedelcu, Gisela Marrero-Rivera

Prerequisite(s): No

Restrictions: No

Activities: Lecture, Project

This novel course is designed to introduce 3rd and 4th year medical students (Career Launch) to the cellular therapy field, including hematopoietic progenitor cells, CAR-T cell, regulatory T cell and other emerging cellular therapies.

School: Medicine

**Department:** Laboratory Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### LAB MED 140.06 Transfusion Medicine Elective (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sara Bakhtary, Elena Nedelcu, Gisela Marrero-Rivera
Prerequisite(s): NA

Restrictions: NA

Activities: Lecture, Clinical, Project

This novel Transfusion Medicine Elective is designed to prepare future physicians to understand the overall transfusion process, blood bank testing, blood products indications and contraindications, transfusion reactions and other transfusion-related topics with emphasis on achieving practical skills, including how to appropriately order blood products, and recognize and report transfusion reactions.

School: Medicine

**Department:** Laboratory Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### LAB MED 140.07 Hematology (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Scott Kogan

Prerequisite(s): 4th year student in good Academic Standing

Restrictions: 4th year students

Activities: Clinical

Students participate in daily operations of the hematology laboratory, working with a resident on either the Bone Marrow or Heme-Coag rotations evaluating current case materials, attending daily signout rounds, and attending weekly teaching conferences.

School: Medicine

**Department:** Laboratory Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## LAB MED 140.08A Microbiology elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Barbara Haller
Prerequisite(s): None

Restrictions: 3rd or 4th year medical student in good standing

Activities: Lab science

This two week course is designed to provide the medical student with a fundamental understanding of the principles and practices of Clinical Microbiology. Through direct observation of benchwork, weekly didactic sessions, teaching rounds, and other learning materials, the student will receive instruction in the following areas of Microbiology: Bacteriology, Mycobacteriology, Mycology, Parasitology, Infectious Disease Serology, Virology and Molecular Diagnostics.

School: Medicine

**Department:** Laboratory Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### LAB MED 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Zane Amenhotep

Prerequisite(s): Consent of instructor preceptor and approval of third- and

fourth-year coordinator.

Restrictions: Medical students only

Activities: Independent Study, Project

Focused study and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Laboratory Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

#### **Medicine (MEDICINE)**

### MEDICINE 110 Medicine Core Clerkship (3-12 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Cindy Lai, Gurpreet Dhaliwal, Binh An Phan Prerequisite(s): 3rd year standing.

Restrictions: UCSF medical students only.

Activities: Seminar, Clinical

The student will admit and follow a patient approximately every fourth night, and participate in team work rounds and attending rounds. In the ambulatory setting, the student will evaluate adult medical patients presenting to the general medical clinic and urgent care clinic for workup of acute new symptoms and for management of chronic illnesses. In the ambulatory setting, the student will work with an internal medical preceptor.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### MEDICINE 130.01 CIEx - Medication Management: Improving Patient Safety (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Stephanie Rennke
Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Medical students are paired with pharmacy students, pharmacy residents and clinical pharmacists, in patient care activities and use interprofessional teambased communications to evaluate medication management for hospitalized patients.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.02 CIEx - Nephrology Apprenticeship (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Anna Malkina

Prerequisite(s): Prior successful completion of Medicine 110

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will explore nephrology as career by participating in the inpatient setting. Students will join discussions on active nephrology cases, pathology conferences, and renal pathophysiology didactics.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.03 CIEx - Gastroenterology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sara Lewin
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will assist the team taking care of patients with common GI problems. Students will observe several common endoscopic procedures. Students will attend weekly GI grand rounds, twice weekly Liver teaching and monthly QI meeting.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.04 CIEx - Pulmonary Medicine: Lung Transplant (1.5-4.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Lorriana Leard, Steve Hays

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participate fully on the inpatient Pulmonary Consult Service, interviewing, examining, presenting, and following up on patients. Students attend weekly conferences, conduct procedures, and learn pulmonary function interpretation.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### MEDICINE 130.07 CIEx - Inpatient Medicine/Cardiology Service (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Cindy Lai
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students enrolled in the inpatient medicine immersion experience will be assigned to one of the inpatient teams (Medicine or Cardiology) for the entirety of their two-week block. Students will assume the traditional role of third-year clerks.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 130.08A CIEx - Inpatient Medicine - Kaiser East Bay (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Alexander Krassner

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is designed as a two-week immersive experience in inpatient Medicine targeted towards students interested in experiencing an integrated health care delivery system, particularly those in the PISCES program.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.10 CIEx - Transplant Hepatology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Courtney Sherman

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This will include time in pre- and post-liver transplant clinic. Students will go to inpatient liver transplant service, working with residents, fellows and NPs. Students will also attend transplant selection conference and tumor board.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 130.11 CIEx - The Art of Clinical Teaching (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Patricia O'sullivan, David Irby

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Seminar, Independent Study

This elective will provide exposure to common teaching models used in the clinical setting. Specifically, students will learn about the One-Minute Preceptor Model for teaching in the outpatient setting and the SNAPPS model. The session will also cover the provision of feedback during a teaching encounter, as well as how to teach efficiently in challenging teaching situations. Students in this course will explore important elements of an academic teaching career in the clinical setting.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### MEDICINE 130.12 CIEx - Occupational and Environmental Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Rahmat Balogun
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will experience the work of an Occupational and Environmental Medicine subspecialist in the outpatient setting at two different clinical sites. Students will delve deeper in specific areas of clinical interest during this elective.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.13 CIEX - Relationship-Centered Communication for Underserved (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Elizabeth Imbert
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This elective will teach students how to apply relationship centered communication (RCC) to underserved patients as part of the ZSFG hospital medicine team, to identify vulnerabilities, celebrate resiliency, & find common ground with patients.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.14 CIEx - Introduction to Adult Hematology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Patricia Cornett
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will experience the range of clinical, diagnostic and therapeutic activities that encompass the transdisciplinary discipline of hematology. Students will experience patients with a spectrum of hematologic disorders.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.15 CIEx - Women's Health Elective - VAMC-SF (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Abigail Wilson
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be exposed to subspecialty experience in women's health and transgender medicine and learn to recognize common diagnoses in women's health practice, observe common procedures, and compose treatment plans for these conditions.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No  $\,$ 

Repeat course for credit? No

#### **MEDICINE 130.16 CIEx - Prostate and Lung Cancer** Elective - VAMC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Gerald Hsu Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will have opportunities to recognize common diagnoses in prostate cancer and lung cancer practice, observe common procedures, and compose treatment plans for these common conditions.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.17 CIEx - Urgent Care Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Paul Nadler Prerequisite(s): None

Restrictions: Foundation 2 students

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. In this elective, students will have the opportunity to develop their skills in the diagnosis and treatment of common acute illness in adults.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **MEDICINE 130.18A CIEx - Longitudinal Inpatient** Elective- KLIC-East Bay (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Tal Ziv Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participating in the UCSF-Kaiser Longitudinal Integrated Clerkship program will complete an inpatient immersive elective in medicine or pediatrics, which will provide additional experience in these disciplines in the inpatient setting.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.18B CIEx - Inpatient Medicine- KLIC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Lin

Prerequisite(s): KLIC San Francisco students

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is designed as an immersive experience in inpatient Medicine targeted towards students interested in experiencing an integrated health care delivery system, particularly those in longitudinall programs.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## MEDICINE 130.19 CIEx - Immersive Experience in Palliative Medicine (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Kara Bischoff
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will spend one week on the inpatient palliative care service at Mission Bay, working with the Palliative Care attending physician and social worker. The second week will be in various outpatient and home based palliative care settings.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## MEDICINE 130.20 CIEx - Immersive Experience in Interventional Cardiology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lucas Zier
Prerequisite(s): None

Restrictions: Medical students in Foundations 2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be exposed to the sub-specialty field of interventional cardiology across all areas of care. Students will participate in clinic, attend conferences, and observe/assist in diagnostic and interventional procedures in the cardiac lab.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

### MEDICINE 130.21 CIEx - Medical Student as Writer (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Louise Aronson
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Lecture, Clinical, Workshop

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Student will join physician-writers and physician-artists to see how a narrative lens and humanities perspective can enhance patient care and physician well-being. Students will submit a written reflection on a patient experience.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.21A CIEx - Cohort Management - KLIC-East Bay (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Tal Ziv Prerequisite(s): None

Restrictions: KLIC students only.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participating in the UCSF-Kaiser Longitudinal Integrated clerkship will have a longitudinal elective in patient cohort management and longitudinal follow up. By the end of the year, student cohorts should include roughly 50 patients.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### MEDICINE 130.21B CIEx - Cohort Management - KLIC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Lin
Prerequisite(s): none

Restrictions: KLIC students only.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students participating in the UCSF-Kaiser Longitudinal Integrated clerkship will have a longitudinal elective in patient cohort management and follow up. By the end of the year, students should have roughly 50 patients in their cohort.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 130.22 CIEx- Sports Medicine - Kaiser San Francisco (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Lin Prerequisite(s): None

Restrictions: None

Activities: Clinical

This is a Curriculum Clinical Immersive Experience (CIEx), which provides medical students an opportunity to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will explore primary care sports medicine as a career by participating in an outpatient clinical setting and learning the role primary care sports medicine plays in non-surgical management of sports-related injuries alongside other specialties.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 130.23 CIEx - Interprofessional Addiction Care (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Meghan O'brien, Triveni Defries

Prerequisite(s): None

Restrictions: None
Activities: Clinical

This is a Curriculum Clinical Immersive Experience (CIEx), which provides medical students an opportunity to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will care for patients with substance use disorders with ZSFG's inpatient Addiction Care Team (ACT)! Interprofessional learners will join the consultation team to support hospital-wide care for patients who use drugs and alcohol.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## MEDICINE 130.24 CIEx - An Interdisciplinary Approach to Weight Management (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Diana Thiara

Prerequisite(s): 3rd year student in good Academic standing

Restrictions: None
Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core Clerkships. This CIEx serves to expose students to the various clinical components involved in an interdisciplinary approach to weight management and obesity medicine. Students will shadow and see patients with providers in medical weight management.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

## MEDICINE 130.25 CIEx- HIV/Infectious Disease Inpatient Experience (3 Units) Fall, Winter, Spring, Summer

Instructor(s): John Szumowski

Prerequisite(s): Medicine 110 Core Clerkship

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core Clerkships. Students will participate fully on the inpatient HIV/Infectious Diseases Consult Service, interviewing, examining, presenting, and following up on patients with a variety of illnesses related to HIV and/or other infectious diseases.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.26 CIEx- Inpatient Solid Tumor Oncology (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sam Brondfield
Prerequisite(s): None

Restrictions: 3rd or 4th student in good academic standing

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be active team members on the inpatient solid oncology consult service, assisting in the diagnosis and treatment of patients with a variety of solid tumors. Students will work directly with oncology attendings, fellows, & nurse.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## MEDICINE 130.30 CIEx - SJV Leadership and Clinical Skills Building - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Loren Alving
Prerequisite(s): MEDICINE 110

Restrictions: Must be an F2 San Joaquin Valley PRIME Student

Activities: Clinical

The students will develop the skills they need to become competent physician leaders in the San Joaquin Valley. Half the time will be devoted to clinical skills with a mentor and half the time will be devoted to developing leadership skills for the SJV, exploring the social determinants of health and cultural and structural competency.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.31 CIEx - Internal Medicine Rural - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Loren Alving Prerequisite(s): n/a

Restrictions: 3rd and 4th year medical students.

Activities: Seminar, Clinical

The Bridges Curriculum CIEx, which provides medical students in F2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is a 2 week rotation for medical students from the SJV PRIME program. The goal is to experience the unique aspects of outpatient adult medicine in a rural setting. Learners will receive regular feedback throughout their rotation.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### MEDICINE 130.32 CIEx - Career Exploration Elective - LIFE (1.5-2 Units) Fall, Winter, Spring, Summer

Instructor(s): Lin Li Prerequisite(s): n/a

Restrictions: Foundation 2 medical students.

Activities: Clinical

This is a Bridges Curriculum CIEx, which provides medical students in F2 opportunities to broaden and enhance their professional development in the health care settings. Students will explore an area of career interest through a two-week experience in a specialty. The student will identify and work with a faculty mentor(s) and to design a clinical immersion experience that exposes to a specific specialty. Depending on career choice could include night and weekend responsibilities within policy.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 130.68 CIEx - Infectious Disease - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Robert Libke, Naiel Nassar

Prerequisite(s): None.

Restrictions: None.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Infectious Disease rotation, students will be exposed to the evaluation and treatment of patients with a variety of infectious disease pathologies in both the inpatient and outpatient settings.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.71 CIEx - Pulmonary - Fresno (3 Units) Fall, Winter, Spring

Instructor(s): Kathryn Bilello
Prerequisite(s): None.

Restrictions: None.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will learn about evaluation and management of adult patients with respiratory diseases. Students will be exposed to physical examination of chest, interpretation of X-ray, arterial blood gases, pulmonary function studies.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 130.77 CIEx - Endocrine/Diabetes - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Varsha Babu
Prerequisite(s): None

Restrictions: None
Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Endocrine/Diabetes rotation, students will be exposed to the evaluation and treatment of patients with a variety of endocrine and diabetic pathologies in both the inpatient and outpatient settings.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### MEDICINE 130.79 CIEx - Lung Nodule - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Daya Upadhyay Prerequisite(s): None.

Restrictions: None. Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Lung Nodule rotation, students will be exposed to the evaluation and treatment of patients with a variety of pulmonary nodule pathologies in both the inpatient and outpatient settings.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.80 CIEx - Gastroenterology & Hepatology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Marina Roytman Prerequisite(s): None.

Restrictions: None.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Gastroenterology & Hepatology rotation, students will be exposed to the evaluation and treatment of patients with a variety of GI & Hepatology pathologies in both the inpatient and outpatient settings.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.81 CIEx - Hematology/Oncology -Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Constance Stoehr, Haifaa Abdulhaq

Prerequisite(s): None

Restrictions: None Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Hematology/Oncology rotation, students will be exposed to the evaluation and treatment of patients with a variety of hematology/oncologic pathologies in both the inpatient and outpatient settings.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 130.82 CIEx - Sleep Medicine - Fresno (3) Units) Fall, Winter, Spring, Summer

Instructor(s): Lynn Keenan Prerequisite(s): None.

Restrictions: None.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Sleep Medicine rotation, students will be exposed to the evaluation and treatment of patients with a variety of Sleep pathologies in both the inpatient and outpatient settings.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### MEDICINE 130.83 CIEx - Rheumatology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Candice Marie Yuvienco

Prerequisite(s): None

Restrictions: None

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Rheumatology rotation, students will be exposed to the evaluation and treatment of patients with a variety of rheumatologic pathologies in both the inpatient and outpatient settings.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 130.84 CIEx - Nephrology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Joseph Duflot
Prerequisite(s): None

Restrictions: None

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. While on the Nephrology rotation, students will be exposed to the evaluation and treatment of patients with a variety of renal pathologies in both the inpatient and outpatient settings.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.01 Acting Internship in Medicine (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Lynnea Mills, Cindy Lai, Gurpreet Dhaliwal, Binh An Phan,

Sirisha Narayana

Prerequisite(s): Medicine 110.

Restrictions: 4th year standing.

Activities: Seminar, Clinical

The sub-intern functions as an internal medicine intern under supervision of the senior resident, admitting roughly 2 new patients every 4-5-day call cycle while continuing to care for previously-admitted patients. Responsibilities for all patients include: initial history and physical exam; data gathering and interpretation; development of assessment and plan for each problem; reliable presentations, orally and in writing; and management as the primary provider throughout the hospital stay.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Cindy Lai

Prerequisite(s): Medicine 110 and approval of third- and fourth-year

coordinator

Restrictions: none

Activities: Clinical

Clinical clerkships in off-campus hospitals approved by the department chairperson, third- and fourth-year coordinator and the dean.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### MEDICINE 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Cindy Lai

Prerequisite(s): Medicine 110 and approval of third- and fourth-year

coordinator

Restrictions: none
Activities: Clinical

Clinical clerkships in off-campus hospitals approved by the department chairperson, third- and fourth-year coordinator and the dean.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### MEDICINE 140.03 Clinical Geriatrics (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Michi Yukawa

Prerequisite(s): Medicine 110 or FCM 110 strongly recommended.

Restrictions: None.

Activities: Lecture, Clinical, Project

This elective explores geriatric medicine and how multiple disciplines work within a skilled nursing home. Student will work with physical, occupational, speech therapist, social workers and nurses at the San Francisco Center for Jewish Living (SFCJL). Student will learn about common geriatric conditions and caring for geriatric patients at the SFCJL. The majority of activities will be at the SFCJL but students will also visit On Lok either in person or virtual and the ZSFGH ACE unit.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.04 Infectious Diseases (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Emma Bainbridge

Prerequisite(s): Completion of Medicine 110 and Surgery 110

Restrictions: 4th year medical student

Activities: Clinical

Clinical elective with inpatient and outpatient infectious diseases at VAMC. Commonly encountered general ID problems of hospitalized patients, and comprehensive outpatient management of HIV disease are stressed. Introduction to clinical microbiology and hospital epidemiology are included.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.05 Palliative Care Service Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Janet Ho
Prerequisite(s): None

Restrictions: Must be 4th year Medical student.

Activities: Clinical

A hospital-based clinical experience on the Palliative Care Service focused on the care of patients with serious, chronic and terminal illness emphasizing symptom management, communication, ethical issues, spiritual care and psychosocial support of patients and their families. Students will have the opportunity to care for patients with serious and life-threatening illness. Students will serve as a part of the palliative care team made up of an attending physician, fellow, and clinical nurses.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### MEDICINE 140.06 Occupational & Environmental Medicine (3 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Rahmat Balogun, Robert Kosnik, Robert Harrison Prerequisite(s): None.

Restrictions: Third- or fourth-year students.

Activities: Clinical

Students evaluate patients or populations exposed to chemicals through environment or injured in the workplace. Learning opportunities include multiple sites such as UCSF/Mt Zion Faculty Multidisciplinary Clinic, Kaiser SF Occupational Medical Clinic, UC Ergonomics Program and California Dept of Public Health. Educational experiences are tailored to student's background and interests.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.07 Oncology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Judy Cheng
Prerequisite(s): Medicine 110

Restrictions: 4th year medical students

Activities: Clinical, Independent Study

Students will evaluate patients with malignant diseases under the supervision of oncology fellows and attending physicians at Zuckerberg San Francisco General Hospital. Students will see oncology patients in the outpatient clinics and on the inpatient consultation service. Students will receive a broad exposure to a wide range of malignant diseases and their treatments.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.08 Gastroenterology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Sara Lewin
Prerequisite(s): Medicine 110

Restrictions: 4th year medical students

Activities: Clinical

Students, along with a second-year fellow, two first-year fellows, a medical resident and attending, serve as a member of the gastroenterology clinical service. Participate in all conferences, journal review and teaching sessions, including specialty clinic (e.g., Liver, IBD clinics).

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.09 Hematology Consult (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Patricia Cornett
Prerequisite(s): all core clerkships

Restrictions: none

Activities: Lecture, Seminar, Clinical

On this 4-week inpatient elective, the student will work under the guidance of a hematology fellow, the hematology nurse practitioner, all supervised by the hematology attending. There are a broad range of cases seen including cytopenias, coagulopathies, bleeding disorders, sickle cell disease, and new evaluations for malignant hematologic diseases. Included in the rotation are several didactic classes, hematology case conferences, and microscope rounds with the hematopathology service.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.09A Hematology Consult (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Patricia Cornett
Prerequisite(s): all core clerkships

Restrictions: none

Activities: Lecture, Seminar, Clinical

On this 2-week inpatient elective, the student will work under the guidance of a hematology fellow, the hematology nurse practitioner, all supervised by the hematology attending. There are a broad range of cases seen including cytopenias, coagulopathies, bleeding disorders, sickle cell disease, and new evaluations for malignant hematologic diseases. Included in the rotation are several didactic classes, hematology case conferences, and microscope rounds with the hematopathology service.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.13 HIV/Infectious Diseases Joint Consultation (6 Units) Fall, Winter, Spring, Summer

Instructor(s): John Szumowski

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Seminar, Clinical

This 4-week clerkship features an active, in-patient consultation service at Zuckerberg San Francisco General averaging two to four new consults per day, with a diverse case mix of HIV and other infectious diseases. The service is supervised on a daily basis by an ID fellow and HIV fellow (select months). Limited outpatient exposure may include ID clinic, HIV primary care, and HIV sub-specialty clinics. Students attend daily patient rounds, weekly ID and HIV conferences, and weekly micro rounds.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.13A HIV/Infectious Diseases Joint Consultation (3 Units) Fall, Winter, Spring, Summer

Instructor(s): John Szumowski Prerequisite(s): MEDICINE 110

Restrictions: None
Activities: Clinical

This 2-week clerkship features an active, in-patient consultation service at Zuckerberg San Francisco General averaging two to four new consults per day, with a diverse case mix of HIV and other infectious diseases. The service is supervised on a daily basis by an ID fellow and HIV fellow (select months). Students attend daily patient rounds, weekly ID and HIV conferences, weekly microbiology rounds, and may attend other research or patient-care conferences on the ZSFG campus.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.14 Sexually Transmitted Diseases (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Oliver Bacon

Prerequisite(s): Fourth-year standing.

Restrictions: 4th year medical students

Activities: Clinical

Fourth-year medical students will be trained in the diagnosis, treatment, and management of sexually transmitted diseases in the clinical setting.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.15 Subinternship in Medicine - Kaiser San Francisco (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Aaron Lam

Prerequisite(s): Successful completion of Medicine 110

Restrictions: 4th year standing

Activities: Clinical

We welcome fourth year medical students as sub-interns on our inpatient medical ward teams, with a hospitalist attending, resident, and two interns. In addition to inpatient rounding service, students are also exposed to one week on the admitting rotation. Students actively participate in all aspects of patient care, similar to an intern, including writing notes, entering orders, calling consults, participating in a robust multi-disciplinary healthcare team, and updating family members.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.19 Clinical Cardiology - VAMC-SF (6 Units) Fall, Winter, Spring, Summer

Instructor(s): John Teerlink
Prerequisite(s): Medicine 110.

Restrictions: None.

Activities: Clinical, Independent Study

Students will learn how to evaluate and manage cardiology patients by working closely with cardiology attending physicians and fellows in an inpatient setting. Through participation in CCU and consult rounds, as well as conferences, students will become familiar with the presentation and management of CCU patients. In addition, the course will provide students with many opportunities to practice and develop the ability ti read and evaluate ECGs.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.20 Infectious Disease (6 Units) Fall, Winter, Spring, Summer

Instructor(s): David Sears
Prerequisite(s): Medicine 110.

Restrictions: none

Activities: Lecture, Clinical

Hospitalized patients with a wide range of infectious diseases are evaluated and presented by students under the direct supervision of the infectious disease fellow. Students present patients at attending rounds, infectious disease conferences, and review appropriate literature on the subject.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.21 Gastroenterology/Liver - Highland Hospital - AHS (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Christina Chou Prerequisite(s): MEDICINE 110

Restrictions: Must be 4th year medical student

Activities: Clinical

This course will provide the student with a broad exposure to gastroenterology and hepatology in an underserved setting. As a functioning member of the team, the student will evaluate, present, and assist in the management of patients seen in the outpatient GI/Liver clinic, the endoscopy unit, and on the inpatient GI/Liver service.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.21A Gastroenterology/Liver - Highland Hospital - AHS (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Christina Chou Prerequisite(s): MEDICINE 110

Restrictions: 4th year medical students\r\n\r\nMust have completed core

Internal Medicine rotation.

Activities: Clinical

This course will provide the student with a broad exposure to gastroenterology and hepatology in an underserved setting. As a functioning member of the team, the student will evaluate, present, and assist in the management of patients seen in the outpatient GI/Liver clinic, the endoscopy unit, and on the inpatient GI/Liver service.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.22 Narrative Medicine and Podcasting with The Nocturnists (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Emily Silverman
Prerequisite(s): all core clerkships

Restrictions: none
Activities: Project

Physicians, privy to an amazing variety of vulnerable experiences shared by humanity, have always been natural storytellers. Organized by The Nocturnists, this elective will introduce medical students to new media and communication, including podcasting, as well as live storytelling events. Students will learn the craft of podcasting, and will leave the elective with a strong mental framework for using podcasts and other narrative-centric media tools to communicate crucial stories in medicine.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### MEDICINE 140.23 Endocrine Metabolism - UCSF Parnassus (6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Umesh Masharani Prerequisite(s): Medicine 110.

Restrictions: none

Activities: Lecture, Clinical

Students based at Moffitt Hospital, twelfth floor south, act as assistants to residents and to endocrine fellows for consultations as well as for hospitalized endocrine patients; attend endocrine and metabolic clinics and seminars, and teaching exercises of endocrinology and metabolism, including Medicine Grand Rounds.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.24 Rheumatology (6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Sarah French, Sarah Goglin Prerequisite(s): Medicine 110.

Restrictions: None.

Activities: Lecture, Clinical, Independent Study

Students will learn to evaluate patients with joint pain as well as systemic illness in this 'hands-on' rotation. Students will evaluate patients with rheumatology attending physicians in the outpatient clinics at UCSF, SFGH and the VA. Students will see inpatients with fellows on the rheumatology consult service at Parnassus. Students will attend pre/post clinic conferences and two weekly didactic conferences.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### MEDICINE 140.25 Nephrology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Ramin Sam

Prerequisite(s): Medicine 110 and fourth-year standing

Restrictions: none

Activities: Lecture, Clinical

Students work up and follow up patients with a wide variety of renal and electrolyte disturbances, and see outpatients in a weekly Renal Clinic. Cases are discussed with attending physicians daily. Students also attend weekly Journal Club, Renal Grand Rounds, and Chief of Service Rounds.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **MEDICINE 140.26 ICU Subinternship - VAMC-SF (6** Units) Fall, Winter, Spring, Summer

Instructor(s): James Frank

Prerequisite(s): Medicine core clerkship

Restrictions: none

Activities: Lecture, Seminar, Clinical

Excellent opportunity to learn and practice in a closed-format MICU/ CCU/SICU supervised by intensivists from medicine and anesthesia critical care. The sub-intern functions as an intern admitting roughly 1 new patient every 1-2 days while continuing to care for up to 4 patients. Responsibilities include: history and physical; procedures, data gathering and interpretation; development of a thorough assessment and plan; reliable oral and written presentations.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.27 Cardiology Rotation - General Cardiology and CCU at CPMC (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Phillip Kennedy Prerequisite(s): Medicine 110.

Restrictions: Fourth year medical students only.

Activities: Clinical

During this rotation, the MS4 will participate in the management of patients with common cardiac conditions such as chest pain, valvular heart disease, heart failure, acute coronary syndromes, and arrhythmias. This will include critically ill patients admitted to the CCU with conditions such as: STEMI/ACD, unstable arrhythmias, decompensated CHF, heart transplant, pulmonary hypertension, cardiomyopathy, and heart block. No overnight call, minimum 4 days off in 4 week block. At Van Ness Campus.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.29 Medical Oncology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Sam Brondfield Prerequisite(s): Medicine 110.

Restrictions: None

Activities: Lecture, Seminar, Clinical

Students evaluate patients on the wards in Moffitt-Long Hospital and participate in daily attending rounds, conferences and seminars. This course emphasizes evaluation and management of patients with solid organ cancers.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.30 Endocrine Metabolism - ZSFG (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Sophie Patzek
Prerequisite(s): Medicine 110

Restrictions: none

Activities: Lecture, Clinical

The Endocrine-Metabolic Service provides an introduction to the diagnosis and treatment of endocrine disorders including diabetes in the inpatient and outpatient setting. Students will see patients on daily consultation rounds and in four weekly clinics. Didactics include preclinic conferences, endocrine grand rounds, a fellows lecture series and a thyroid pathology conference.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.30A Endocrine Metabolism - ZSFG (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sophie Patzek

Prerequisite(s): Medicine 110 and fourth-year standing

Restrictions: None

Activities: Lecture, Clinical

The Endocrine-Metabolic Service provides an introduction to the diagnosis and treatment of endocrine disorders including diabetes in the inpatient and outpatient setting. Students will see patients on daily consultation rounds and in two weekly clinics. Didactics include preclinic conferences, endocrine grand rounds, a fellows lecture series and a thyroid pathology conference.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.31 Medical ICU/CCU - Kaiser San Francisco (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Ryan Chang Prerequisite(s): None.

Restrictions: 4th year medical students. Cannot accept students in July.

Activities: Clinical

Excellent opportunity to learn and practice in a closed model mixed MICU/CCU. Multidisciplinary approach to providing care for critically ill patients. Highly supervised by board certified intensivists with an emphasis on student generated goals and objectives.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.32 Introduction to Quality Improvement & Patient Safety (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Kristen Kipps
Prerequisite(s): None

Restrictions: 4th year medical students

Activities: Seminar

Rotation will provide students with an immersion experience in quality improvement and patient safety (QI/PS) activities. Students will learn fundamental concepts in QI/PS through directed readings and didactics, apply their learnings in experiential fashion e.g conduct formal adverse event case review, and attend key UCSF medical center QI/PS committees. Students will also learn about organizational, unit/practice, and individual approaches to improving patient care using QI/PS tools.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.34 Renal Consultation (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Anna Malkina Prerequisite(s): Medicine 110.

Restrictions: none

Activities: Lecture, Clinical

The student will join the renal team and participate under supervision in evaluation and treatment of patients with renal disease or disorders of fluid, acid-base, or electrolyte balance. Emphasis is placed on pathophysiology, history-taking, physical examination, and treatment.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.35 Cardiology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Mary Gray Prerequisite(s): Medicine 110.

Restrictions: None
Activities: Clinical

See patients in consultation on wards and clinic; read electrocardiograms; improve auscultatory skills; review cases with cardiology Fellows, consult attendings; observe cardiac procedures - transthoracic and transesophageal echocardiograms, cardiac catheterizations; attend seminars, conferences. If time permits students welcome to sit in on inpatient rounds,see patients with inpatient team. Students expected to give 30-45 minute presentation at conclusion of elective topic of their choice.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.39 Pulmonary Disease (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Paul Wolters
Prerequisite(s): Medicine 110

Restrictions: none
Activities: Clinical

Students participate fully on the inpatient Pulmonary Consult Service, interviewing, examining, presenting, and doing follow-up of their own patients. Attend weekly conferences, receive some experience with procedures (e.g., bronchoscopy), learn pulmonary function interpretation, and do directed reading relevant to their patients.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.41 Gastroenterology - ZSFG (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Colin Feuille

Prerequisite(s): Medicine 110 and fourth-year standings.

Restrictions: none
Activities: Clinical

Students evaluate and present GI consults on patients admitted to the medical and surgical wards. Observe GI techniques, including sigmoidoscopy, colonoscopy, endoscopy, liver biopsy. Attend weekly GI and liver clinics, and conferences held in conjunction with Surgery, Pathology and Radiology.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.43 Lifestyle Medicine in Prevention and Treatment of Disease (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Dean Ornish
Prerequisite(s): None.

Restrictions: 3rd and 4th year medical students.

Activities: Clinical, Independent Study

The Lifestyle Medicine Program uses a comprehensive approach to address the underlying causes of disease rather than merely treating its symptoms. This comprehensive program provides a spectrum of choices in nutrition, managing stress, exercise and social support, taking into consideration individual needs and preferences. This course is unique in that it combines both didactic and experiential learning.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### MEDICINE 140.45 Endocrine Metabolism - VAMC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Anne Schafer

Prerequisite(s): Medicine 110 and consent of instructor.

Restrictions: None.

Activities: Lecture, Seminar, Clinical

An introduction to the diagnosis and treatment of endocrine-metabolism diseases. The areas covered include those endocrinopathies involving the major endocrine glands, as well as diabetes mellitus and hyperlipemias. Patients will be examined and treated in both the inpatient and outpatient services. Attendance at 3 clinics per week and daily work rounds are required activities as well as post clinic conferences on Fridays.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.46 Pulmonary Medicine (6 Units) Fall, Winter, Spring, Summer

Instructor(s): John Metcalfe

Prerequisite(s): Fourth-year medical student in good standing.

Restrictions: none

Activities: Clinical

Pulmonary disease, including clinical manifestations, basic pathophysiology, use and limitations of diagnostic studies and treatment. Experience will be gained by seeing patients on wards and through a series of ongoing conferences, ward rounds and review sessions under close faculty supervision.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.48 Pulmonary Medicine - St. Mary's (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Daniel Raybin

Prerequisite(s): Fourth-year standing.

Restrictions: Limited to 1 student per month; must have pulmonary resident on service.

Activities: Lecture, Clinical, Discussion

The purpose of this clerkship is to introduce senior medical students to the three main aspects of pulmonary medicine: the chest service, intensive care and the pulmonary function lab.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **MEDICINE 140.49 Introduction to Poverty Medicine** - UCSF Parnassus (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Emma Shak

Prerequisite(s): Third- and fourth-year medical students only.

Restrictions: none

Activities: Lecture, Clinical, Project

This course is a two week elective during which students will explore the social, environmental and medical aspects of the care of impoverished populations. The class will include work in community clinics, visits to medical and non-medical service providers and lectures by local experts.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.50 Clinical Care and Teaching at UCSF's Student Homeless Clinic (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Daniel Wlodarczyk

Prerequisite(s): None

Restrictions: Fourth year students in the School of Medicine

Activities: Clinical

Many medical students have an interest in working with vulnerable populations and have volunteered at the UCSF Student Homeless Clinic during their pre-clinical years. This elective would allow fourth year medical students to return to clinic with advanced skills; this would allow them to further refine their clinical skills, learn about issues facing homeless individuals, and provide supervision to the pre-clinical students.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **MEDICINE 140.55 Medicine Subinternship - CPMC (6** Units) Fall, Winter, Spring, Summer

Instructor(s): Phillip Kennedy

Prerequisite(s): Medicine 110, 4th year standing

Restrictions: none

Activities: Clinical, Independent Study

During the 4 week Sub-Internship, students will assume the role of the intern. The rotation is on a 5 day call cycle. You will work closely with your supervising senior resident in the admission, work-up and day to day management of patients admitted to the medicine service. You will be exposed to patients with diverse socioeconomic, cultural, and ethnic backgrounds, and with wide ranging acute and chronic medical diagnoses. You will be expected to manage 4-6 patients at a time.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.60 Medicine Subinternship - Highland Hospital - AHS (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Archana Sridhar

Prerequisite(s): All 3rd year core clerkships

Restrictions: 4th year medical students only

Activities: Clinical

An exciting, stimulating 4 weeks as a subintern at a busy County hospital. You may see malaria, botulism, septic shock, and other fascinating and serious conditions. Attending staff make daily teaching/management rounds and you will have the opportunity to manage cases under their direction as a subintern, admitting patients from the Emergency Department, writing orders and gaining experience with procedures.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.66 Internal Medicine - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Manjit Singh

Prerequisite(s): Fourth-year standing

Restrictions: none
Activities: Clinical

Students assigned to teams with first- and second-year residents, rounds with attending faculty, participation in daily conferences. Emphasis on pathophysiology of disease processes, management of acute medical problems. Refine skills in history-taking, physical examination, write-ups, presentations, techniques of diagnostic procedures. Students may be placed on inpatient at either CRMC or VA-Fresno.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 140.67A CIEx - Neurointensivist-Neurohospitalist Immersion - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Manjit Singh

Prerequisite(s): Completion of Medicine 110 core clerkship

Restrictions: n/a
Activities: Clinical

Students will be paired with a neurointensivist and a neurohospitalist in this apprenticeship model to provide care for patients with acute neurological and neurosurgical diseases in Californias Central Valley. This CIEx elective would provide 3rd-year medical students the opportunity to gain firsthand experience in the day-to-day care of patients with diseases, such as subdural hematomas, subarachnoid hemorrhages, brain tumors, strokes, spinal stenosis, spinal tumors, etc.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.68 Infectious Diseases - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Geetha Sivasubramanian, Naiel Nassar

Prerequisite(s): Medicine 110

Restrictions: None
Activities: Clinical

In this course students will participate in the management of common and unusual infectious diseases in both inpatient and outpatient settings. Management may include the use of antimicrobials in the presence of impaired renal or hepatic function, treatment of infection in the immunologically compromised host, patient evaluation, treatment follow-up, and participating in ward rounds and conferences. Microbiology laboratory can be arranged.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.68A Infectious Diseases - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Geetha Sivasubramanian

Prerequisite(s): None

Restrictions: None Activities: Clinical

This 2 week medicine elective is for students interested in additional exposure to the world of infectious disease. Students will participate in the management of common and unusual infectious diseases. The elective will take place both in the inpatient and the outpatient settings.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.69 Cardiology Consultation - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Teresa Daniele Prerequisite(s): None.

Restrictions: None.

Activities: Clinical

Participation with housestaff in patient care on CCU, ICU, medical wards, outpatient clinics. Introduction to invasive and non-invasive diagnostic procedures, techniques of management in care of hospitalized and ambulatory patients. Attend ECG interpretations, CCU rounds, consults, and teaching conferences.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.70 Hospital Medicine Elective - ZSFG (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Abhishek Karwa, Gabe Ortiz

Prerequisite(s): Must be a 4th year medical student\r\nReceived a passing grade on the required 4th year medicine subinternship

Restrictions: None
Activities: Clinical

The fourth year elective in hospital medicine is a two week clerkship experience on the Faculty Inpatient Service at San Francisco General Hospital, an attending staffed hospitalist service. Students will work under the direct supervision of faculty hospitalists to provide care for underserved adult medicine inpatients at SFGH, improving their diagnostic and therapeutic skills and engaging in multidisciplinary care.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.71 Pulmonary Disease - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Kathryn Bilello, Michael Peterson Prerequisite(s): Medicine 110 or consent of instructor

Restrictions: None.
Activities: Clinical

Evaluation and management of adult patients with respiratory diseases, supervised by housestaff and faculty, Pulmonary Medicine section. Emphasis on physical examination of chest, interpretation of X-ray, arterial blood gases, pulmonary function studies. Gain familiarity with respirators and other aspects of respiratory care.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.71A Pulmonary Medicine - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Kathryn Bilello, Vipul Jain

Prerequisite(s): None

Restrictions: 3rd or 4th year students

Activities: Clinical

This 2 week medicine elective is for students interested in additional exposure to the world of pulmonary medicine. The elective will take place in both the inpatient and outpatient settings. Students will participate in the evaluation and management of adult patients with respiratory diseases, under the supervision of faculty, fellows and residents.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### MEDICINE 140.72 Comprehensive Palliative Care (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Eric Widera

Prerequisite(s): MEDICINE 110\r\nSURGERY 110\r\nPEDIATRICS 110\r\nOB GYN R S 110\r\nPSYCHIATRY 110\r\n\r\nStudents must have successfully completed all 3rd year core clerkships

Restrictions: Students must have successfully completed all 3rd year core clerkships

Activities: Clinical

Four week comprehensive elective in palliative care will include experiences in multiple venues: Hospital consultations, hospice (home and inpatient), outpatient symptoms management clinic. Students will learn to care for patients with life-threatening illness and gain experience with symptom management, end-of-life discussions, complex spiritual, social, psychosocial aspects of end of life care, multiple venues of care

and systems issues, and interdisciplinary approach to whole-patient care.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.73 Advanced Cardiology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Teresa Daniele, Brandon Woodbury Prerequisite(s): Medicine 110, 4th Year Standing.

Restrictions: None.

Activities: Lecture, Clinical, Independent Study

This 4-week module will teach and provide a basis for systemic interpretation of the EKG with the under served populations in the Central Valley. It will address underlying normal cardiac structure/function and cardiac abnormalities as reflected in the surface EKG. There will be 1 hour daily didactic sessions with student led ECG analysis session and daily clinic rotations on the ancillary cardiology services. Special emphasis on issues in the care of patients with cardiac issues.

School: Medicine

Department: Medicine

Repeat course for credit? No

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No

# MEDICINE 140.73A Advanced Cardiology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Teresa Daniele, Brandon Woodbury Prerequisite(s): Medicine 110, 4th year standing

Restrictions: none

Activities: Lecture, Clinical, Independent Study

This 2-week module will teach and provide a basis for systemic interpretation of the EKG with the underserved populations in the Central Valley. It will address underlying normal cardiac structure/function and cardiac abnormalities as reflected in the surface EKG. There will be 1 hour daily didactic sessions with student led ECG analysis session and daily clinic rotations on the ancillary cardiology services. Special emphasis on issues in the care of patients with cardiac issues.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.77 Endocrinology/Diabetes - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Varsha Babu Prerequisite(s): Medicine 110

Restrictions: None

Activities: Lecture, Clinical, Independent Study

Students gain extensive experience in care of patients with diabetes and other endocrine disease through active participation in special diabetes inpatient units, ward consultations, diabetes and endocrine clinics, and patient educational programs located at the CRMC in Fresno and in the community.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.77A Endocrinology/Diabetes - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Varsha Babu Prerequisite(s): none

Restrictions: None

Activities: Clinical

Students gain experience in the care of patients with diabetes and other endocrine diseases through active participation in inpatient ward consultations, diabetes and endocrine clinics, and unique patient educational programs.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.78 Critical Care Medicine - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Kathryn Bilello, Timothy Evans Prerequisite(s): 4th year standing

Restrictions: None.
Activities: Clinical

Students participate in the management and evaluation of critically ill patients in the Medical Intensive Care Unit. This includes the interpretation of laboratory results, blood gases and chest X-rays and the use of mechanical ventilation and hemodynamic monitoring. Supervision is by full-time faculty with senior Medicine residents.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.80 Gastroenterology & Hepatology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Marina Roytman

Prerequisite(s): n/a

Restrictions: n/a

Activities: Lecture, Clinical, Independent Study

Students will become part of the GI-Liver team. In addition to basic patient evaluation, they will participate in the broad range of diagnostic and therapeutic endoscopic procedures. Participation in an active ambulatory clinic adds to the variety of patients seen.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.80A Gastroenterology & Hepatology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Marina Roytman

Prerequisite(s): n/a

Restrictions: n/a
Activities: Clinical

Students will become part of the GI-Liver team. In addition to basic patient evaluation, they will participate in the broad range of diagnostic and therapeutic endoscopic procedures. Participation in an active ambulatory clinic adds to the variety of patients seen.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.81 Hematology/Oncology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Uzair Chaudhary, Haifaa Abdulhaq Prerequisite(s): 4th Year Standing

Restrictions: None

Activities: Lecture, Clinical, Independent Study

The hematology-oncology (hem-onc) rotation is designed to provide an opportunity for advanced 4th-year medical students (MS4) to have a time for concentrated study of diseases of the blood and bloodforming organs, benign and malignant tumors, including study of their development, diagnosis, treatment, and prevention. While on the rotation, acquisition of knowledge about hem-onc will be fostered by being involved in the evaluation and treatment of patients in both the inpatient and outpatient.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.81A Hematology/Oncology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Uzair Chaudhary, Haifaa Abdulhaq

Prerequisite(s): 3rd Year Medicine Standing or 4th Year Medicine

Standing

Restrictions: n/a
Activities: Clinical

This hematology-oncology rotation is designed to provide an opportunity for medical students to have a time for concentrated study of diseases of the blood and blood-forming organs, benign and malignant tumors, including study of their development, diagnosis, treatment, and prevention. This is a 2-week rotation that takes place at CRMC in Fresno. CRMC is one of the main teaching hospitals for UCSF Fresno and is a level 1 trauma center serving Californias Central Valley.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

# MEDICINE 140.82A Sleep Medicine - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lynn Keenan
Prerequisite(s): n/a

Restrictions: 3rd- and 4th-year MD students

Activities: Clinical

Sleep medicine is a growing field that impacts many patients in a general medicine clinic. The goal of this rotation is to expand student knowledge and skills in Sleep Medicine.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### MEDICINE 140.83 Rheumatology - Fresno (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Candice Marie Yuvienco Prerequisite(s): 4th Year Standing

Restrictions: None
Activities: Clinical

The rheumatology rotation is designed to provide an opportunity for 4thyear medical students to have a time for concentrated study of disorders of the musculoskeletal system. While on the rotation, acquisition of knowledge about rheumatologic diseases will be fostered by being involved in the evaluation and treatment of patients with a variety of rheumatologic pathologies in both the inpatient and outpatient areas.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 140.83A Rheumatology - Fresno (2.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Candice Marie Yuvienco Prerequisite(s): MSIII or MS IV standing.

Restrictions: n/a
Activities: Clinical

The rheumatology rotation is designed for medical students MS3 and MS4 for the study of disorders of the musculoskeletal system, including autoimmune and inflammatory disorders. Acquisition of knowledge about rheumatologic diseases by being involved in the evaluation and treatment of patients with a variety of connective tissue diseases in both the inpatient and outpatient areas. This elective is a 2-week rotation that takes place at Community Regional Medical Center (CRMC)/VA in Fresno.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.84 Nephrology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Joseph Duflot
Prerequisite(s): n/a

Restrictions: 4th year MD students.

Activities: Clinical

This clinical nephrology rotation is a four-week rotation that takes place at Community Regional Medical Center (CRMC) in Fresno. Students on the nephrology rotation will engage in both inpatient and outpatient care. Students will become acquainted with the tools necessary to provide consultative services. This includes a complete assessment of the patient and providing answers to questions asked in the consultation.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.84A Nephrology Elective - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Joseph Duflot
Prerequisite(s): n/a

Restrictions: 3rd year and 4th year MD students.

Activities: Clinical

This clinical nephrology rotation is a two-week rotation that takes place at Community Regional Medical Center (CRMC) in Fresno. CRMC is one of the main teaching hospitals for the UCSF Fresno Medical Education Program. It is a tertiary referral hospital with a level 1 trauma center serving Californias Central Valley.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.86 Pulmonary Medicine - Highland Hospital - AHS (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Monica Bhargava
Prerequisite(s): None

Restrictions: Students must be of 4th year standing

Activities: Clinical

Participate in clinical, diagnostic activities of Consult Service. Rounds occur at bedside to verify, demonstrate historical and clinical findings, patients hospital course, provide updates on diagnostic testing and therapeutic interventions. Attend conferences, view procedures, learn pulmonary function interpretation, read assigned texts, papers relevant to patients. Rotation encourages students to become adept in care of respiratory diseases of busy inner city hospital caring for underserved.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### MEDICINE 140.91 ECG Interpretation (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Cara Pellegrini, Thomas Dewland

Prerequisite(s): Fourth-year standing in School of Medicine.

Restrictions: None.

Activities: Lecture, Workshop

The course consists of interactive small group workshops focused on cardiac electrophysiology, derivation of ECG wave forms, and diagnoses of common electrocardiographic abnormalities.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.93 Integrative Health & Medicine Clinical Elective (2.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Anand Dhruva
Prerequisite(s): None.

Restrictions: This course is designed for MS4s but we will consider 3rd year learners by request.

Activities: Clinical, Independent Study, Project, Workshop, Discussion

This clinically oriented elective will introduce students to the practice of integrative medicine. Learners will develop integrative medicine skills for both their future clinical practice and self-care. \r\n\r\nWeek 1: Learners will start in the classroom engaging with flipped classroom content, discussions, and skills-based experiential activities. \r\nWeek 2: Learners will take the knowledge and skills that they have developed and apply them in a mentored setting in the Osher Center Clinic.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.95 Intensive Care Unit (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Tyronda Elliott

Prerequisite(s): Fourth Year Standing

Restrictions: 1 student per block

Activities: Lecture, Clinical

The ICU service consults on, or cares for all of the medical patients in the ICU. There is a lecture series and a syllabus. There is formal instruction in ventilator management and in invasive procedures, this rotation allows students to become comfortable in caring for critically ill patients.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 140.97 Medical Intensive Care Unit (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Phillip Kennedy Prerequisite(s): Medicine 110.

Restrictions: none

Activities: Lecture, Clinical

Students learn critical care medicine im a busy ICU with a diverse patient population and broad ranging case mix.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 141.02 Cardiology Interprofessional Elective (2.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Crystal Zhou Prerequisite(s): None required

Restrictions: MS4 students

Activities: Clinical, Project

The UCSF Division of Cardiology services 7 outpatient clinics in the Bay Area and they provide care to over 12,000 patients each year. Primary sites include: UCSF Cardiovascular Care and Prevention Center (Mission Bay) and UCSF Cardiac Rehabilitation and Wellness Center (Parnassus). Medical students (MS3 and MS4 preferred) will be paired with advanced practice pharmacy students to provide direct patient care under the supervision of licensed professionals.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 141.17 Interprofessional Addiction Care (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Alex Logan, Meghan O'brien, Triveni Defries
Prerequisite(s): None

Restrictions: 4th Year student in good academic standing

Activities: Clinical

During this 4 week elective, MS4s will build confidence and skill caring for patients with substance use disorders by joining ZSFG's inpatient Addiction Care Team (ACT)! Interprofessional learners will join the consultation team of attending physician, fellow, substance use navigator and licensed vocational nurses to support hospital-wide care for patients who use drugs and alcohol. Students will work collaboratively with interprofessional learners through various activities.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

# MEDICINE 150.01 Research in Medicine (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Cindy Lai

Prerequisite(s): Consent of faculty member in charge of students research project and approval of third- and fourth-year coordinator.

Restrictions: None

Activities: Fieldwork, Project, Lab science

Students continue previously initiated research projects under the quidance of faculty members.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? Yes

# MEDICINE 160.04 Medical Science & Clinical Problems (1 Units) Fall, Winter, Spring

Instructor(s): Cathy Hoerth

Prerequisite(s): Must be an MD/PhD trainee in the MSTP at UCSF.

Restrictions: Must be an MD/PhD trainee in the MSTP at UCSF.

Activities: Clinical

Clinical contact is arranged with mentor for experience in ward rounds, clinic work, etc. in clinical departments with approved faculty. Student will choose mentor from list of available faculty. MSTP students are required to complete 6 units before completion of the PhD MEDICINE

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 170.01A Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Cindy Lai
Prerequisite(s): none

Restrictions: No restrictions. All UCSF students enrolled in the Schools of Medicine, Nursing, Pharmacy & Dentistry may enroll in this course and receive credit.

Activities: Lecture

Explore in systematic (lecture/readings/small group discussion) format new issues in health care or special content areas related to medicine. Topics are developed and prepared according to faculty-student interests.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### MEDICINE 170.01B Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Cindy Lai
Prerequisite(s): none

Restrictions: Students from the other professional schools at UCSF are

welcome to take this course

Activities: Lecture

Explore in systematic (lecture/readings/small group discussion) format new issues in health care or special content areas related to medicine. Topics are developed and prepared according to faculty-student interests.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# MEDICINE 170.01C Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Cindy Lai
Prerequisite(s): none

Restrictions: Students from other UCSF professional schools are welcome to take this course.

Activities: Lecture

Explore in system (lecture/readings/small group discussion) format new issues in health care or special content areas related to medicinel Topics are developed and prepared according to faculty-student interests.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# MEDICINE 170.01D Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Cindy Lai
Prerequisite(s): none

Restrictions: Students from the other professional schools at UCSF are  $\,$ 

welcome to take this course

Activities: Lecture

Explore in systematic (lecture/reading/small group discussion) format new issues in health care or special content areas related to medicine. Topics are developed and prepared according to faculty-student interests.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 170.01E Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Cindy Lai
Prerequisite(s): None

schools at UCSF are welcome to take this course.

Activities: Lecture

Explore in systematic (lecture/reading/small group discussion) format new issues in health care or special content areas related to medicine. Topics are developed and prepared according to faculty-student interests.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 170.01F Special Issues in Health Care (1 Units) Fall, Winter, Spring

Instructor(s): Cindy Lai
Prerequisite(s): None

Restrictions: No restrictions. Students from the other professional schools at UCSf are welcome to take this course.

Activities: Lecture

Explore in systematic (lecture/reading/small group discussion) format new issues in health care or special content areas related to medicine. Topics are developed and prepared according to faculty-student interests.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 170.07 Communicating with the Latino Patient (1 Units) Fall, Winter, Spring

Instructor(s): Leslie Seijo
Prerequisite(s): None

Restrictions: None

Activities: Lecture

A practical course designed to develop basic skills in overcoming cultural and linguistic barriers to health care for Spanish-speaking persons.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 170.09 Current Topics in Medical Science (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Aimee Kao
Prerequisite(s): none

Restrictions: none

Focus on research interests of UCSF faculty. Provides broad introduction to campus research, practice in reading and analyzing research publications. Speaker's talk includes discussion of personal background, present research, background description on research area, and discussion of future research plans.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 170.10 Basic Science Journal Club (1 Units) Fall, Winter, Spring

Instructor(s): Aimee Kao
Prerequisite(s): None

Restrictions: None

Activities: Lecture, Independent Study

The basic science journal club is a student led course designed to investigate cutting edge research in the basic sciences and its implications for translational and clinical care. Open to health professional students and required of 1st year MSTP students, each participant chooses, researches, and presents a recent journal article of their choosing and facilitates a discussion with the entire class at least once throughout the year.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# MEDICINE 170.34A Asian American Pacific Islander Health Disparities (1 Units) Fall

Instructor(s): Cindy Lai
Prerequisite(s): None

Restrictions: None

Activities: Lecture

The primary goal of this elective is to introduce students to the health issues prevalent in the Asian American Pacific Islander communities (API). During the course, students will learn to define the health disparities faced by the API community and acquire a background in topics such as hepatitis B, cardiovascular risks, and pharmacogenomics to provide patient education and improve community outreach.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# MEDICINE 170.36 MSTP Into the Clinic! (3 Units) Fall, Winter, Spring

Instructor(s): Cathy Hoerth
Prerequisite(s): MSTP

Restrictions: MSTP students in the final year of their graduate studies

planning to return to medical school this spring.

Activities: Seminar, Clinical

This course is an intensive re-introduction to clinical medicine for MSTP students completing graduate studies and planning to return to medical school this spring. The course includes 5 half-days of didactics where students review and practice history taking, physical exam skills, oral presentations, and analysis of basic clinical data (labs, EKGs etc.) through clinical cases. Skills are reinforced through 3-5 afternoons of clinical immersion.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 170.37 National Transgender Health Summit (1 Units) Spring

Instructor(s): Jae Sevelius Prerequisite(s): none

Restrictions: None.

The National Transgender Health Summit is a two day conference for medical providers and students to increase awareness of transgender (trans) issues in health care. The Summit aims to increase provider skills in the provision of optimal health care for trans patients and to provide a professional forum for the sharing of best practices, innovative techniques, and cutting edge research among providers who wish to gain expertise in providing competent care for trans patients.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **MEDICINE 170.38 Health Professions Students as** Writer (1 Units) Fall, Winter, Spring

Instructor(s): Louise Aronson Prerequisite(s): None

Restrictions: Medical students only

Activities: Workshop

To inspire & develop physician-writers of all types by exploring ways writing can inform, shape, & become part of a medical career. Class has three parts 1) UCSF physician-writers describe their careers and ways in which writing contributed to their success and satisfaction 2) discussion of one type of medical writing based on assigned reading 3) brief writing exercise.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 170.40 UCSF Student Flu Crew for Seasonal Flu Vaccination (0.5-1.5 Units) Fall. Winter

Instructor(s): Jordan Rinker, Robert Harrison

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Clinical

Students plan, coordinate, administer flu vaccines in the SF Bay Area. These free on-site events will be held at various locations in coordination with local social services groups for underserved communities and employers. Students will be responsible for. Obtaining vaccines and supplies including funding.\r\nldentifying community partners for sites to administer vaccine.\r\nScheduling students, faculty for each vaccination event. \r\nConsenting, administering and documenting each vaccination given.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### MEDICINE 170.41 Word on the Wards: Inpatient Health **Education at SFGH (1 Units) Fall, Winter, Spring**

Instructor(s): Kelly Han Prerequisite(s): None

Restrictions: 1st and 2nd year students from schools of Medicine, Pharmacy, Nursing and PT are all welcome to take this course.

Activities: Lecture, Fieldwork

Word on the Wards is an interprofessional program, in collaboration with the SFGH Hospitalist Division, in which UCSF students act as health coaches for patients on the SFGH wards. This elective consists of an 8hour training session and two clinical shifts. During the training session, students will learn about working with underserved populations, their role as a health coach, health topic content, and health coaching techniques. They will apply these skills during their clinical shifts.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### **MEDICINE 170.42 Collaborative Clinical Case Investigation (1 Units) Fall, Spring**

Instructor(s): Cindy Lai Prerequisite(s): N/A

Restrictions: N/A

Activities: Seminar, Clinical

Master clinicians develop their diagnostic acumen by learning through case discussions. Cases allow students to learn history taking, differential diagnosis, disease management, and other valuable skills to prepare for clinical years. Each week in this elective, a senior medical student or resident will present a real case. The class will walk through a fun, challenging, and interactive discussion on how to think about the case and reason out the correct diagnosis and appropriate management.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 170.43 HealthLink (1 Units) Fall, Winter, Spring

Instructor(s): Manuel Tapia Prerequisite(s): None

Restrictions: None

Activities: Lecture, Workshop

The focus of this elective is promoting education about health sciences in under-represented communities via service learning. UCSF students will learn how to mentor, design curriculum, and teach by interacting with under-represented high school sophomores in an 8-session program. This is an interdisciplinary elective involving students from schools of medicine, nursing, dental, pharmacy and physical therapy.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### MEDICINE 170.44 Current Issues in Medical Informatics (1 Units) Fall

Instructor(s): David Avrin, Michael Blum, Russ Cucina, Aaron Neinstein Prerequisite(s): None

Restrictions: None
Activities: Seminar

Seminar for MSI & MSII, Nursing, Pharmacy, & Dental students, interested in current issues in medical informatics related to the successful deployment and implementation of EMR (Electronic Medical Record). Seminar format 1 hour per week, with each week devoted to a specific topic from a list. 30 min will be formal lecture to introduce the topic, followed by 30 min discussion. Syllabus will identify required reading prior to each week's session. No prior computer science expertise required.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# MEDICINE 170.45 Homeless Clinic Experience (1 Units) Winter, Spring

Instructor(s): Cindy Lai, Margo Vener

Prerequisite(s): Only SOM Students must complete Medicine 170.10A

speaker series

Restrictions: N/A

Activities: Clinical, Fieldwork

The Homeless Clinic Experience will give students an opportunity to volunteer at a Homeless Clinic for elective credit. Participants must have completed a Homeless Clinic orientation session or plan to complete an orientation session before volunteering. This elective is open to medical and nursing students. Participants must complete 3 shifts at a Clinic per quarter to obtain elective credit. The shelter will be chosen by the student coordinators of this course.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# MEDICINE 170.46 Exploring Med-Peds (1 Units) Fall, Spring

Instructor(s): Bradley Monash
Prerequisite(s): None

Restrictions: None
Activities: Seminar

In the form of one-hour, interactive lectures hosted by dual-trained UCSF resident and faculty members, this course will introduce and expose medical students to careers within the combined medicine-pediatrics field, including career pathways and training venues, med-peds opportunities, the fields of pediatrics and adult internal medicine, and the similarities and dissimilarities that exist between them.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### MEDICINE 170.48 A Student-Curated Health Humanities Event Series (1 Units) Fall

Instructor(s): Emily Silverman, Meghan O'brien

Prerequisite(s): N/A
Restrictions: N/A

Activities: Seminar

Join forces with interdisciplinary health professions students! In small teams, you will choose a health-related topic with social, emotional, or ethical dimensions (e.g. addiction, organ transplantation) around which to plan a public event that incorporates storytelling, medical humanities, and the arts with the goal of building understanding, promoting dialogue, and making the invisible visible. This course will enroll 12-16 students for 7 evening sessions at a faculty member's home.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 170.49 Native Health Elective (1 Units) Fall

Instructor(s): Tasce Bongiovanni

Prerequisite(s): None

Restrictions: None

Activities: Lecture

This elective offers an introduction to and overview of the health of Native American/Alaska Native communities. The course will examine both historical and political influences on Native health, as well as provide cultural context and examples of resilience within Indigenous communities. We start the course with a brief history of Native policies, including the development of the Indian Health Service. We will then discuss various disparities affecting Native communities (e.g. access to care).

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 170.50 Cardiology Interest Group: Review and Explore (1 Units) Fall

Instructor(s): Binh An Phan Prerequisite(s): None

Restrictions: None

Activities: Lecture

The Cardiology Interest Group (CIG) will provide students an opportunity to explore and learn about the field of Cardiology. CIG provides educational teaching sessions led by faculty and students, in an effort to bolster long-term retention and prepare for clinical clerkships, mentorship and advising from faculty in the UCSF Division of Cardiology, and career exploration with the help of Faculty guest speakers in the Division of Cardiology.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# MEDICINE 170.51 A Community Engagement Pop-up Addressing Health Disparities (1 Units) Winter

Instructor(s): Malcolm John
Prerequisite(s): None

Restrictions: None
Activities: Clinical

The course will provide students the opportunity to work directly in a community clinic that predominantly serves Black/African American residents in the Filmore/Western Addition, outer Mission, and Bayview district. Students will participate in the pop-up clinics and provide health education and counseling, health screenings, and other health services to residents while working with other health professionals in this work.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MEDICINE 170.52 Universal Healthcare and how we get there (1 Units) Spring

Instructor(s): Jamesg Kahn
Prerequisite(s): None

Restrictions: None
Activities: Lecture

Explores in systematic (lecture/readings/discussion) format issues in U.S. health care policy as it relates to the financing, delivery, uneven and racialized outcomes, evidence-based research, and student-directed system change. The course offers an opportunity for students to learn the history of the U.S. health care system and how to achieve Medicare for All. Topics are prepared according to student interests.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

# MEDICINE 170.53 Innovating Healthcare: From Concept to Reality (1 Units) Spring

Instructor(s): Liviu Klein Prerequisite(s): None

Restrictions: None

Activities: Lecture, Fieldwork, Project

Innovating Healthcare Technology: From Concept to Reality guides students through the journey of creating new health technologies. Learn how needs are identified, solutions are devised and de-risked, and factors such as Intellectual Property protection, clinical trial design, FDA oversight, reimbursement, and how startup fundraising and operations impact healthcare innovation. Students will further explore how healthcare systems, policies, and norms themselves might be reimagined and redesigned.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# MEDICINE 180 Occupational Toxicology (2 Units) Winter

*Instructor(s):* Timur Durrani, Dennis Shusterman Prerequisite(s): Consent of instructor.

Restrictions: Consent of instructor.

Activities: Lecture, Project

Course provides understanding of basic principles of toxicology as related to work environment and workers' health.

School: Medicine

Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# MEDICINE 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Cindy Lai

Prerequisite(s): Consent of instructor preceptor and approval of third- and

fourth-year coordinator.

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine
Department: Medicine

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **MEDICINE 199 Laboratory Project in Medicine (1-6** Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor preceptor and approval of third- and fourth-year course director.

Restrictions: None

Activities: Lab science

Students will select and conduct a research project under the guidance of a member of the Department of Medicine Faculty.

School: Medicine **Department:** Medicine

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### **MEDICINE 205 Research Seminar in Health Professions Education (1-6 Units) Fall, Winter, Spring, Summer**

Instructor(s): Christy Boscardin, Patricia O'sullivan Prerequisite(s): Health Professions Education Pathway or Teaching Scholars Program taken either before or concurrent with enrollment. \r\nMust be enrolled at UCB.UCB students taking this course for

credit need to fill out an Intercampus Exchange application. http:// registrar.ucsf.edu/registration/intercampus-exchange

Restrictions: This course is only opened to any level of UCSF learner enrolled at UCB.\r\nStudents must have instructor's approval to ensure that the prerequisites have been met.

Activities: Lecture, Seminar, Project

Seminar to analyze, develop educational research in health professions. Students examine literature and ascertain status of health professions education relative to work in related disciplines. Students present developing research studies and critique work of others not only from course but from UCSF community. Students learn about dissemination and participation in relevant professional organizations. UCB students taking course for credit need to complete an Intercampus Exchange application.

School: Graduate Division

**Department:** History Of Health Sciences Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### Microbiology (MICROBIOL)

#### MICROBIOL 204 Molecular and Cellular Immunology (3 **Units) Fall**

Instructor(s): Jason Cyster, Clifford Lowell

Prerequisite(s): Undergraduate level knowledge of molecular biology, cell biology and genetics. Some basic knowledge of the immune system is helpful but not required.

Restrictions: None other than the prerequisite

Activities: Lecture, Workshop, Discussion

Topics to be covered: Mechanisms of innate immunity, inflammation. immunoglobulin gene rearrangements, cell biology of antigen presentation to T-cells and of lymphocyte trafficking, antigen and cytokine receptor structure and signaling, lymphocyte development and activation, mechanisms of cell-mediated killing of infected and neoplastic cells, whole organism immune response to infection, diseases of the immune system, including allergy, autoimmunity, and AIDS, and immune cell engineering.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **MICROBIOL 211 Integrative Microbiology Seminar** Series (1 Units) Fall, Winter, Spring

Instructor(s): Anita Sil Prerequisite(s): None.

Restrictions: None. Activities: Lecture

The Integrative Microbiology Seminar Series consists of weekly presentations of research on multiple aspects of microbe-host interactions, basic microbiology, and innate immunity. Speakers include scientists at other institutions as well as UCSF researchers.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# MICROBIOL 212 Immunology Journal Club (1 Units) Fall, Winter, Spring

Instructor(s): Adrian Erlebacher
Prerequisite(s): Micro 204

Restrictions: None.
Activities: Lecture

Course explores recent discoveries in Immunology. Students required to present once for 25 minutes. Presentations can be on recent publications of immunological interest, or student's own research. The focus on current immunological knowledge and recent breakthroughs exposes students to material relevant to their research projects. Faculty are assigned for each presentation as necessary. All students in ImmunoX-affiliated labs are required to take the course.

School: Graduate Division

**Department:** Biomedical Sciences Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### **Neurological Surgery (NEURO SURG)**

NEURO SURG 130.01 CIEx - Neurosurgery Elective - VAMC-SF (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Phiroz Tarapore Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will have opportunities to recognize common diagnoses in neurosurgery practice, observe common procedures, and compose treatment plans for these common conditions. Students will serve as part of the patient care team.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NEURO SURG 130.03 CIEx - Neurosurgery Subspecialty (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Manish Aghi
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. During this CIEx, the student spends 2 weeks with the team of neurosurgery residents at Parnassus rounding on patients and going to the operating room. Students also join residents for academic conferences.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEURO SURG 130.04 ClEx - Pediatric Neurosurgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Nalin Gupta
Prerequisite(s): None

Restrictions: None
Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. During this CIEx, the student spends 2 weeks with the team of neurosurgery residents at Mission Bay or Children's Hospital Oakland rounding on patients and going to the operating room. Students also join residents for academic conferences.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NEURO SURG 140.01 Advanced Neurosurgery Clerkship (3-11 Units) Fall, Winter, Spring, Summer

Instructor(s): Manish Aghi, Michael Mcdermott Prerequisite(s): NEURO SURG 140.05, NEUROLOGY 110

Restrictions: UCSF does not accept international students for clinical

experiences.

Activities: Lecture, Clinical

The clinical clerkships allow students considering a residency in neurological surgery to work with our faculty and the current residents in all aspects of the neurosurgery service, as well as interact with faculty in other departments who regularly work with the Department of Neurological Surgery. Students can rotate at all our teaching hospitals.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, \ P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEURO SURG 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Manish Aghi
Prerequisite(s): Neurology 110

Restrictions: 4th Year Medical Students

Activities: Clinical

Clinical clerkship in approved hospitals by special arrangement, and approval of the dean and chairperson of the department.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# NEURO SURG 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Manish Aghi
Prerequisite(s): NEUROLOGY 110

Restrictions: None
Activities: Clinical

Neurosurgery clinical clerkships are offered in off-campus hospitals approved by the instructor of record for the course and the dean.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# NEURO SURG 140.05 Clinical Neurosurgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Manish Aghi

Prerequisite(s): MS3 or MS4 standing.

Restrictions: MS3, MS4

Activities: Clinical

Students will shadow a resident and interact with faculty accordingly in the operating room, inpatient setting and outpatient clinic. Student experiences will differ by site but may include treatment of movement disorders, epilepsy, pediatric and adult brain tumors, head and spinal trauma (operative and non-operative management), hydrocephalus, aneurysms, peripheral nerve disorders and disc disease.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# NEURO SURG 150.01 Research in Neurosurgery (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor and department.

Activities: Fieldwork, Project, Lab science

Research project under the direction of a member of the faculty. Extensive background reading will be required and discussion of important topics will be held at weekly laboratory and program project research conferences.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### NEURO SURG 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Manish Aghi

 $\label{preceptor} Prerequisite (s): Consent of instructor preceptor and approval of third- and$ 

fourth-year coordinator.

Restrictions: Medical students only

Activities: Independent Study, Project

Focused study and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Neurological Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### **Neurology (NEUROLOGY)**

# NEUROLOGY 110 Neurology Core Clerkship (1.5-6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Megan Richie, Alexandra Brown Prerequisite(s): None.

Restrictions: UCSF 3rd year medical students.

Activities: Seminar, Clinical

Students are assigned patients for study under the supervision of attending and resident staffs. They attend work rounds, attending rounds, clinic, grand rounds, conferences and lecture-seminars, emphasizing diagnosis and management of core clinical problems in neurology. This course is taught in conjunction with the 4-week Psychiatry 110 clerkship, resulting in an 8-week long continuity clinic and a combined psychiatry and neurology conference.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### NEUROLOGY 130.01 CIEx - Clinical Behavioral Neurology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): David Perry
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will explore the clinical evaluation and treatment of neurodegenerative disorders. Instruction on dementia subtypes, brain-behavior relationships, cognitive assessment, psychopharmacology and neuropathology will be offfered.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### NEUROLOGY 130.03 CIEx - Adult Outpatient Neurology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Megan Richie

Prerequisite(s): The neurology core clerkship, Neurology 110, is a prerequisite. KLIC and PISCES students are required to have completed at least 50% of their longitudinal curriculum with interim evaluations that are on course for a passing grade in neurology. , NEUROLOGY 110

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will rotate in the neuromuscular, movement disorders, and neuroinflammatory/multiple sclerosis subspecialty clinics under the supervision of a limited number of teaching neurology attendings.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NEUROLOGY 130.04 CIEx - Child Neurology Outpatient Apprenticeship (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Audrey Foster-Barber

Prerequisite(s): Either Neuro 110 or Peds 110

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will work directly with 2-3 core general child neurologists, including attending conferences, reviewing results, meeting with care teams, and seeing patients.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 130.05 CIEx - Child Neurology Inpatient Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Audrey Foster-Barber Prerequisite(s): Neuro 110 or Peds 110

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will work with the resident and faculty on the main inpatient consult service for child neurology. Students will participate in patient care in the ICU, ward consults, and in the Emergency Room settings.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NEUROLOGY 130.06 CIEx - Child Neurology Inpatient Subspecialty Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Audrey Foster-Barber Prerequisite(s): Neuro 110 or Peds 110

Restrictions: Medical students in Foundations 2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will spend one week each on subspecialty inpatient teams: Pediatric Epilepsy and Pediatric Neonatal Care. Students will participate in consults and family conferences.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# NEUROLOGY 140.01A Advanced Clinical Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Vanja Douglas

Prerequisite(s): Neurology 110 and fourth year standing, or Neurology 110 and completion of core clerkships in Medicine, Surgery and Pediatrics.

Restrictions: 4th year Medical students

Activities: Clinical

Students will spend 4 weeks as acting interns on the neurohospitalist service at UCSF Health. Two weeks is spent on the consult service and two weeks on the primary ward service. The neurohospitalist service is a tertiary care referral service that serves the Bay Area, Northern and Central California. There will be exposure to a wide variety of neurologically affected patients in and out of the intensive care unit. Attendance at departmental clinical rounds, seminars and conferences is required.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Megan Richie
Prerequisite(s): NEUROLOGY 110

Restrictions: Instructor approval required

Activities: Clinical

Clinical clerkship in approved hospitals by special arrangement and approval of the dean and the chairperson of the department.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# NEUROLOGY 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Megan Richie
Prerequisite(s): Neurology 110

Restrictions: Instructor approval required

Activities: Clinical

Clinical clerkship in approved hospitals by special arrangement and approval of the dean and the chairperson of the department.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### NEUROLOGY 140.04 Child Neurology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Audrey Foster-Barber

Prerequisite(s): Pediatrics 110, Medicine 110, and Neurology 110.

Restrictions: none
Activities: Clinical

Participation in child neurology activities, both inpatient and outpatient, and all regularly scheduled conferences of the Child Neurology Division. Study of the developing nervous system and diseases of the nervous system affecting infants, children and adolescents.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NEUROLOGY 140.10 Advanced Neurocritical Care and Emergency Neurology - ZSFG (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Douglas Pet, Vanja Douglas

Prerequisite(s): Neurology 110 and fourth-year standing

Restrictions: ONLY UCSF Students, no visiting students

Activities: Clinical

Students will spend a total of 4 weeks at SFGH, San Francisco's only trauma center, where they will develop advanced neurological skills in the care of emergent neurological patients through triage, evaluation, and neurocritical care management. Students spend two weeks on the neurology consultation service under the supervision of the consultation resident and attending neurologist. The other two weeks are spent caring for patients in the neurocritical care unit with the neuro-ICU team.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 140.12 Neurocritical Care (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nerissa Ko, Wade Smith

Prerequisite(s): Fourth-year standing. Neurology 110. Consent of

instructor.

Restrictions: Limited to 1 student per block.

Activities: Clinical

This advanced clerkship concentrates on the fundamentals of critical care with an emphasis placed on neurological illness. Essential skills and concepts related to the management of critically-ill neurological/neurosurgical patients will be introduced during lectures, conferences, daily rounds and night-calls.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 140.13 Clinical Behavioral Neurology (6 Units) Fall, Winter, Spring, Summer

 ${\it Instructor}(s) : {\tt David Perry}, {\tt Bruce Miller}, {\tt Howie Rosen}, {\tt Katherine Rankin},$ 

Mary De May, Michael Geschwind, Bill Seeley

Prerequisite(s): Neurology 110

Restrictions: 3rd or 4th year student in good academic standing

Activities: Clinical

The Neurobehavioral rotation will explore brain-behavior relationships in neurodegenerative disorders. Instruction on dementia subtypes, cognitive assessment, psychopharmacology, and neuropathology will be offered. To apply this knowledge, students will participate in multi-disciplinary clinics, during which they will observe and perform neurobehavioral histories and examinations. Clinicians will provide feedback and guidance, supplementing differential diagnoses and plans for intervention.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

# NEUROLOGY 140.16 Advanced Outpatient Neurology Elective (2-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Megan Richie
Prerequisite(s): NEUROLOGY 110

Restrictions: This course is not available every block and all enrollments

should be pursued directly through Dr. Richie.

Activities: Clinical

Students spend two weeks rotating through a variety of outpatient neurologic subspecialties. This course serves to provide outpatient neurology exposure but does not substitute for a neurology subinternship for those applying in neurology.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# NEUROLOGY 140.17 Dementia in the Outpatient Setting - Fresno (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Loren Alving

Prerequisite(s): Neurology 110 and/or 4th year standing.

Restrictions: None

Activities: Clinical, Project

This is a 2 or 4 week elective at the UCSF Fresno Alzheimer & Memory Center for 4th year medical students. Students will spend time seeing patients at the Alzheimer Center and will participate in our multidisciplinary team meetings. Other experiences may include a home visit, elder abuse conference involving local social workers and law enforcement. A short project is required during rotation.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NEUROLOGY 140.18 Memory & Aging Center Remote Neurobehavioral Rotation (6 Units) Fall, Winter, Spring, Summer

Instructor(s): David Perry

Prerequisite(s): Successful completion of a general Neurology course

recommended

Restrictions: 4th Year visiting students in Good Academic Standing

Activities: Clinical

The Remote Neurobehavioral rotation explores brain-behavior relationships in neurodegenerative disorders. Students will participate in a didactic series that includes instruction on dementia subtypes, cognitive assessment, evaluation and treatment of neurodegenerative diseases. To apply this knowledge, students will remotely participate in multiple-disciplinary clinics, during which they will observe and perform neurobehavioral histories and examinations. This course is for visiting students.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 140.19 Sleep Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Liza Ashbrook

Prerequisite(s): Students in Career Launch in good academic standing

Restrictions: None

Activities: Lecture, Clinical

Sleep medicine is an interdisciplinary field bringing together medicine, pediatrics, psychiatry, neurology, ENT, and OMFS. Students will have the opportunity to see a range of patients and learn about evaluation and treatment of sleep complaints. Regardless of which field of medicine students pursue, sleep impacts all patients. Poor sleep has a huge range of negative health outcomes. Students will learn to understand sleep disorders so they will not miss these critical treatment opportunities.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 150.01 Research in Neurology (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Megan Richie

Prerequisite(s): Consent of faculty member in charge of student's research project and approval of third and fourth year coordinator.

Restrictions: None

Activities: Fieldwork, Project, Lab science

Opportunities for clinical or laboratory research under the guidance of department faculty.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NEUROLOGY 170.10 Training the Mind (1 Units) Fall

Instructor(s): Daniel Lowenstein

Prerequisite(s): None.
Restrictions: None

Activities: Lecture

This course was developed as a way to integrate mind-body medicine content into the BMB block for second year medical students. The overall objective of this elective is to provide students with an overview of practices that have been shown to enhance the abilities of the normal, healthy mind, with an emphasis on meditation.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# NEUROLOGY 170.11 Exploring Pediatric Neurology (1 Units) Fall, Spring

Instructor(s): Sharon Wietstock

Prerequisite(s): None

Restrictions: None

Activities: Lecture

This elective will explore varying topics in Pediatric Neurology by inviting professionals to speak about their careers with the intention of teaching students about career paths in Pediatric Neurology, highlighting interesting work relevant to the field completed by members of the UCSF community and exposing students to the varying types of patients and conditions that they may encounter while working as a Pediatric Neurologist.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 170.30 Intro to Neuro Subspecialties (1 Units) Fall

Instructor(s): Alexandra Nelson

Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course is intended for medical students interested in Neuroscience-related subspecialties, including Neurology, Neurosurgery, Neuropathology, Neuroradiology, and Psychiatry. Through weekly lectures by different physicians and physician-scientists, it will provide an overview of clinical and research opportunities in each presented field. There will be emphasis on evaluation and treatment of patients, relevant research, training/residency, subspecialty fellowships, and career development.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

# NEUROLOGY 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine
Department: Neurology

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### **Neurosciences (NEUROSCI)**

# NEUROSCI 200 Introduction to Neuroscience. Essential Concepts & Methods (2.5 Units) Fall

Instructor(s): Vikaas Sohal

Prerequisite(s): There are no prerequisites, but permission of instructor in charge is required.

Restrictions: This course is intended for entering first year Ph.D. students in the Neuroscience program. Others may be admitted as space permits.

Activities: Lecture

This course will include lectures on basic methods used for neuroscience research, laboratories that demonstrate these methods and conferences that discuss their applicability and caveats. The course is designed to prepare our entering students for laboratory rotations and the core course. The material presented should also help them understand seminars and journal clubs.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# NEUROSCI 201A Basic Concepts in Cellular and Molecular Neuroscience (5 Units) Fall

Instructor(s): Kevin Bender, Robert Edwards, Lily Jan, Roger Nicoll, Massimo Scanziani, Vikaas Sohal, Mark Von Zastrow Prerequisite(s): None.

Restrictions: This course is required for first year Neuroscience students. It is open to additional students as space allows and with the approval of the instructor.

Activities: Lecture, Seminar

An interdisciplinary introduction to fundamental aspects of nervous system function including neurocytology, neuroanatomy, electrical excitability, synaptic transmission, signal transduction, genetics, and neurodevelopment.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# NEUROSCI 201B Basic Concepts for Cellular and Developmental Neuroscience (4 Units) Winter

Instructor(s): Jonah Chan, Aimee Kao

Prerequisite(s): None

Restrictions: None

Activities: Seminar, Discussion

Introduction to fundamental aspects of nervous system development, including patterning, neuronal specification and function, glial cells of the nervous system, and application-based molecular/cellular neuroscience methods.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NEUROSCI 201C Introduction to Systems and Behavioral Neuroscience (4 Units) Spring

Instructor(s): Devanand Manoli

Prerequisite(s): NS201A and NS201B or consent of course director.

Restrictions: None.

Activities: Lecture

An overview of basic cell biology and neural development. Topics will include membrane trafficking, neuronal cytoskeleton, axon guidance, synapse formation, cell cycle, neuronal cell fate determination, neuronal stem cells, and patterning of the vertebrate brain.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# NEUROSCI 215 Laboratory Rotation (8-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: none

Activities: Lab science

A laboratory rotation course to familiarize new departmental graduate students with various approaches to neurobiological research.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NEUROSCI 219 Special Topics in Basic and Translational Neuroscience (3 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): None. Completion of first year curriculum in Neuroscience or another experimental biology graduate program is helpful, but not essential.

Restrictions: Neuroscience graduate students, other graduate and professional students with interest in neuroscience. Permission from instructor is required.

Activities: Lecture, Independent Study

Each course offering will focus on the literature of a current important area of Neuroscience research. Students will be expected to read assigned papers critically before class and to present and discuss papers in class. Students will also be expected to write and present a brief research proposal based upon their reading. Topics in molecular, cellular, developmental, systems & computational neuroscience, and neurological & behavioral disorders will be covered in separate course offerings.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

# NEUROSCI 220 Neuroscience Journal Club (1 Units) Fall, Winter, Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Seminar

Pertinent papers from the recent neuroscience literature are read and discussed. Each student must participate regularly and present one paper per quarter.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NEUROSCI 221 Current Topics in Neuroscience (1 Units) Fall, Winter, Spring

Instructor(s): Zachary Knight Prerequisite(s): None.

Restrictions: Neuroscience graduate student, or permission from

instructor.

Activities: Seminar

Students will become familiarized with cutting-edge experimental findings in cellular, molecular, and systems neuroscience by attending the formal Neuroscience Seminar series, meeting and discussing related papers, and meeting with the speaker, Students will be expected to critically analyze new results and put them in context of published literature. Course meets for 10 weeks spread out over 3 quarters. Offered every year.

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# NEUROSCI 248 Analysis of Neural and Behavioral Data (3 Units) Winter

Instructor(s): Loren Frank

Prerequisite(s): NS201A and 201B or consent of course director. Previous Matlab experience strongly suggested

Restrictions: None.

Activities: Lecture, Independent Study

Lectures, critical discussions, and problem solving using Matlab, a mathematical and data visualization program. Topics may include: probability, descriptive statistics, binomial and poisson processes, analysis of spike trains, and analysis of dynamic neural and behavioral dats. Problem sets include statistical analysis and simulation of neural and behavioral data. Previous Matlab experience strongly suggested. Offered every two years beginning Spring 2004

School: Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### NEUROSCI 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project, Lab science

Dissertation research.

**School:** Graduate Division

**Department:** Neuroscience Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# Nursing, Advanced Practice (NURSADVPR)

# NURSADVPR 200 Concepts and Theory Application for Advanced Practice Nurses (3 Units) Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP Program students or consent of instructor

Activities: Lecture, Seminar

In this course, students will use critical thinking to evaluate nursing science and theory, and the impact on contemporary healthcare. Theories and conceptual frameworks that underpin knowledge, scholarship and practice will be discussed. Middle range theories from nursing and other disciplines will be evaluated for their application to healthcare issues, and their support of clinical inquiry and practice interventions that enhance outcomes.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# NURSADVPR 202 Essentials of Human Genomics for the Advanced Practice Nurse (1 Units) Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Course open to PB-DNP program students or with consent

of instructor

Activities: Lecture

The course will focus on clinical practice, scientific, technologic, social, policy, and regulatory aspects of genomics in clinical practice. The course will provide an introductory survey of these topics aligned with the Essential Competencies in Genomics for Advanced Practice Nurses.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# NURSADVPR 203 Structural Racism, Healthcare and Social Justice (2 Units) Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Course open to PB-DNP students or with consent of

instructor

Activities: Lecture

The course will introduce learners to the concepts of structural racism and other inequities and the implications for advanced nursing practice. The link between historical events and current health disparities are analyzed. The intersectionality of racism with poverty and other marginalized and underserved communities will be discussed in depth.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 204 Advanced Health Policy and Advocacy (3 Units) Fall

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lecture, Discussion

This course focuses on critical analysis of health policy in support of strategic action and advocacy. The course will cover health policy analysis within the context of economic, legal, social justice, and ethical issues and stimulate debate for decision-making and action. Partnerships with professional and/or community agencies that present opportunities to apply and evaluate health policy intervention and policies related to current healthcare\r\nissues will be explored.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### NURSADVPR 205 Evidence Appraisal for the Nurse Leader (3 Units) Fall

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Course open to PB-DNP program students or with consent

of instructor

Activities: Lecture

This foundational course in nursing scholarship is designed to provide the advanced-level nurse with the necessary knowledge and skills to analyze and utilize research during administrative, policy or clinical decision-making. The course is designed to facilitate evaluation of the research process,\r\ndevelopment of clinical questions, and the critical appraisal of research papers, with an equitable approach in their practice as advanced-level clinicians and leaders in their nursing disciplines.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 206 Principles of Clinical Prevention and Population Health (3 Units) Fall

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Course offered to PB-DNP students only or with consent of

the instructor

Activities: Lecture, Discussion

This course investigates clinical prevention, health promotion, and population health concepts through literature review and case studies. Evidence-based, epidemiologic, and population health approaches will be applied to healthcare decision making at the individual and systems level.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# NURSADVPR 207A Foundations of interprofessional practice for nurse leaders (1 Units) Fall, Winter, Spring

Instructor(s): Angel Kuo
Prerequisite(s): None

instructor; course is run in-process over three quarters

Activities: Seminar

This course will provide foundational content on interprofessional (IP) collaborative practice skills for delivering high-quality, patient-centered care on IP teams. Students will participate in IP small group sessions (Core Principles of Interprofessional Practice) to apply the skills learned with a trained facilitator and participate in IP simulation with standardized patients. Course spans three quarters; students enroll for 1u for one quarter and 0u for the remaining quarters.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? Yes

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSADVPR 208 Health Assessment for Advanced Practice (2 Units) Winter

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lecture, Discussion

This course focuses on assessment concepts and skills to determine the health status of patients across the life span. Topical areas will include the collection and interpretation of clinical data derived from the history and physical exam for advanced practice students

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

**Course Grading Convention:** Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSADVPR 209 Clinical Pharmacology for Advanced Practice (3 Units) Winter

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or consent of instructor

Activities: Lecture, Discussion

Course addresses pharmacotherapeutic and pharmacokinetic concepts across broad categories of pharmacologic agents. Key physiologic changes across the lifespan that impact pharmacologic agent effect and action are highlighted. Course content builds knowledge and skills to be able to assess, diagnose and manage common health problems, and analyzes relevant legal, regulatory, quality and safety issues relating to advanced practice nurse\r\npharmacologic agent furnishing and drug ordering.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

## NURSADVPR 210A Introduction to the PB-DNP Program: Prelude to DNP Success (2 Units) Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Course open to PB-DNP students or with consent of

instructor

Activities: Workshop, Discussion

This first course in the post-Baccalaureate to Doctor of Nursing Practice (PB-DNP) curriculum provides foundational content to support student success. Students will be guided through the expectations of the 3-year curriculum, and supported in accessing campus resources, navigating hybrid courses and demonstrating basic academic skills needed for their program of study. Opportunities for interacting and collaborating with their cohort and program and specialty faculty and staff will be provided.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSADVPR 211 Physiology and Pathophysiology for Advanced Practice (2 Units) Winter

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lecture, Discussion

This course integrates and applies system-focused physiologic and key pathophysiologic concepts across the lifespan, supporting the foundation for advanced-level nursing education and practice. Emphasis is on the association of physiological alterations with clinical manifestations.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 212 Improving Health Outcomes by Advancing QI and Safety (3 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lecture, Discussion

Students will evaluate the history of quality and safety issues, and analyze current research, quality improvement, safety and management models, and innovative strategies implemented in healthcare. Emphasis is placed on the role of the DNP nurse leader in developing and leading quality initiatives to improve health outcomes for diverse populations, health systems and patients.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSADVPR 220 Common Symptom Assessment and Management (3 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with instructor consent

Activities: Lecture, Discussion

This course focuses on commonly encountered signs and symptoms of illness across the life span. Symptoms and signs will be analyzed using a clinical decision-making model. The underlying causes and appropriate management of common illnesses are evaluated.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSADVPR 221 Family Primary Care Seminar (2 Units) Spring

Instructor(s): Staff

Prerequisite(s): Taken concurrently with Common Symptom Assessment

and Management

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Seminar

This seminar is taken concurrently with Common Symptom Assessment and Management, and provides specialty content necessary for family primary care nurse practitioners. Course content will utilie case presentations and other relevant learning strategies.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSADVPR 222 Sexual and Reproductive Health Promotion (2 Units) Winter

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Discussion

This course provides an exploration of theories, concepts, and knowledge necessary to maintain and promote the sexual and reproductive health of individuals. Emphasis is on the application of current research regarding clinical decision-making and management of pregnancy, postpartum and common gynecological conditions.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 230 Theoretical Perspectives on Mental Illness (2 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Discussion

This course examines major theories of mental illness and their implications for understanding the etiology and treatment of psychiatric conditions. Biological, psychological, and social models will be analyzed and applied to the assessment and management of mental health problems. Ethical issues raised by different theoretical perspectives will be discussed.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### Common Mental Health Conditions (2 Units) Spring Instructor(s): Staff

**NURSADVPR 231 Assessment and Management of** 

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lecture, Discussion

Course introduces students to common mental health conditions encountered by advanced practice nurses across the continuum of care. Course analyzes clinical presentations, contributing factors, structural influences, and appropriate management and self-care for patients and families across the life span

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 240A Management of Acute and Chronic Illness (2 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor.

Activities: Lecture

This course is one of four disease management courses that focuses on the diagnosis and treatment of acute and chronic illnesses affecting adult and older adult patients. Students synthesize pathophysiologic concepts using evidence-based resources to analyze clinical data and formulate\r\ndifferential diagnoses, select diagnostics, and develop management strategies. The course objectives are met through reviewing prerecorded lectures and synchronous didactic content, and case study analyses.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSADVPR 250 AGPCNP Common Symptom Assessment (1 Units) Spring

Instructor(s): Staff

 $\label{preconcurrently} Prerequisite(s): Taken \ concurrently \ with \ Common \ Symptom \ Assessment$ 

and Management course

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Seminar

This seminar provides content specific to the AGPCNP role in assessment and management of symptoms commonly encountered in primary care of adults. Application from the course will be made through problem-based learning.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSADVPR 260 Health Promotion for Chronically and Critically Ill Children (3 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP program students or with consent of

instructor

Activities: Lecture

This course focuses on ethical and culturally-sensitive pediatric health promotion strategies for infants, children, and adolescents with an additional focus on health promotion application while managing complex acute, critical, and chronic health conditions in acute care settings. Emphasis is on foundations for child health and wellness, including growth and development milestones, immunization scheduling, and screening and surveillance for physiologic and behavioral/mental health disorders.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSADVPR 270 Assessment and Health Promotion for Neonates and Infants (3 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or consent of instructor

Activities: Lecture

This course addresses concepts in advanced assessment utilized to determine the health status of neonates and infants up to 2 years old. Emphasis is placed on the systematic collection and interpretation of clinical data derived from comprehensive patient and family histories, physical examinations, and diagnostic interventions. Discourse will focus on health promotion and disease prevention.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 271 Advanced Practice Neonatal Seminar (1 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Discussion

This seminar will prepare the neonatal advanced practice registered nurse (APRN) to discuss care planning for neonatal and infant patients in acute and convalescent care settings. Interactive exercises are offered to analyze, discuss and cultivate fundamental skills in neonatal assessment, management, and team communication.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSADVPR 272 Impact of Perinatal Health on the Fetus and Neonate (1 Units) Winter

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or consent of instructor

Activities: Lecture, Discussion

This course examines perinatal issues of the pregnant patient that impact the health of the fetus and neonate. The course will support knowledge acquisition related to routine perinatal care, and explore the effect of acute and chronic perinatal conditions, and their associated evidence-based therapeutic interventions, on the pregnant patient and fetus

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 420 FNP Clinical Practicum (3 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Course open to PB-DNP students or with instructor approval

Activities: Clinical, Conference

This course offers opportunities to apply and evaluate theories, concepts, and skills in clinical settings under the supervision of a clinical preceptor. The focus is on the development of the family nurse practitioner as generalist in the primary care setting emphasizing health promotion health maintenance and illness prevention within the context of collaborative practice.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 440A Adult Gerontology Acute Care Clinical Practicum (1 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with instructor approval

Activities: Clinical

The course provides application of health assessment concepts and skills under supervision of clinical preceptors. Students perform systematic health assessment of healthy adults, and/or adults with stable acute or chronic illness and develop an increasing ability to differentiate between normal and abnormal findings. The course develops the role of Acute Care Nurse Practitioner, with emphasis on the collaborative relationship and the continuum of care from primary to tertiary settings.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSADVPR 450 AGPCNP Clinical Practicum (3 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Course open to PB-DNP students or with consent of

instructor.

Activities: Clinical, Conference

Course provides clinical experiences focusing on the advancement of history and physical examination skills while acquiring proficiency in developing health promotion and maintenance plans for adult gerontology primary care nurse practitioner students.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSADVPR 460A ACPNP Clinical Practicum I (2 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Clinical, Conference

This clinical course integrates scientific knowledge and clinical practice to develop emerging advanced assessment, diagnostic, and management skills in pediatric specialty care settings. Focus is on detailed data gathering, refinement of physical exam skills, and development of a problem list for infants, children, and adolescents with and/or without complex acute, critical, or chronic health conditions.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSADVPR 461 Physiologic Development in the Pediatric Population (2 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lecture

Course addresses organ system development and function as modified by evolving system maturation and level of health and illness in the infant, child, and adolescent. Additional factors influencing pediatric health and illness including the human genome, congenital anomalies, environmental exposures, and the microbiome are components of discussion on the impact to organ system development and function.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

## NURSADVPR 470 Neonatal NP Clinical Practicum (2 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor.

Activities: Clinical

The clinical practicum provides opportunities in which the student integrates scientific knowledge and theory, with clinical assessment and management skills into the care of hospitalized neonates. Students build skill in comprehensive health assessments, problem solving and use of critical thinking to create and execute care plans. Students also build proficiency in effective consultation, communication and collaboration with neonatal providers, staff and families.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSADVPR 480 AGCNS Clinical Practicum (2 Units) Spring

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Clinical

This foundational clinical course for the AGCNS student in the BSN to DNP program provides the opportunity to apply health assessment concepts and skills under the supervision of clinical preceptors. Students will practice advanced assessment, intervention and management skills in the three spheres of CNS practice: patient, staff and health systems

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Nursing (NURSING)**

#### **NURSING 200A Foundations of Interprofessional** Collaborative Practice - A (1 Units) Fall, Winter, Spring

Instructor(s): Angel Kuo, Peterson Pierre

Prerequisite(s): none

Restrictions: MS Nursing students only

Activities: Seminar, Web work

This 3-quarter course will provide foundational content on interprofessional collaborative practice skills for delivery of high quality, patient-centered care on an interprofessional team. Learners will participate in interprofessional small group sessions (Core Principles of IPE) to apply the skills learned with a trained facilitator, as well as participate in interprofessional simulation with standardized patients. Students should enroll in 1 unit in one term, and zero units in the other

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? Yes

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 200B Foundations of Interprofessional** Collaborative Practice (B) (0.5 Units) Fall

Instructor(s): Angel Kuo, Peterson Pierre Prerequisite(s): N200A or concurrent enrollment

Restrictions: None

Activities: Seminar, Web work

This course will provide content on interprofessional collaborative practice skills needed to deliver patient-centered, quality care on an interprofessional team, specifically conflict management and leadership/ membership on an interprofessional team. Learners will participate in interprofessional small group sessions to apply the skills learned with a trained facilitator. Learners will also evaluate team dynamics and engage in critical reflection of own behavior and impact on team dynamics.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? Yes

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NURSING 202A Theory Development in Nursing (3 **Units) Winter**

Instructor(s): Ifeyinwa Asiodu

Prerequisite(s): Doctoral standing or consent of instructor.

Restrictions: None Activities: Lecture

Critical analyses of contemporary strategies for the development of nursing theory building, particularly as they relate to selected nursing phenomena and an in-depth analysis of selected theoretical schools of thought.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 203 Palliative and End-of-Life Care Across the Continuum (2 Units) Spring

Instructor(s): Astrid Block Prerequisite(s): None

Restrictions: None

Activities: Lecture, Web work

Course Description: This course examines the theory and practice of providing palliative and end-of-life care to patients and their families across multiple practice settings and the lifespan. A multidisciplinary approach to palliative care will address symptom management, as well as spiritual, ethical, communication and self-care issues.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 203A Communication in Palliative Care (1 Units) Spring

Instructor(s): Lauren Hunt
Prerequisite(s): None

Restrictions: None
Activities: Workshop

This course introduces essential communication skills and capacities that are required for effective palliative care nursing practice. Course activities include the opportunity to practice communication skills using a variety of methods.

School: Nursing

**Department:** Physiological Nursing

Repeat course for credit? No

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

### NURSING 207A Communicating with the Latino Patient I (1 Units) Winter

Instructor(s): Pilar Bernal De Pheils

Prerequisite(s): Students must demonstrate an advanced level of conversational Spanish to the instructor to enroll in the course.

Restrictions: Enrollment by consent of instructor. Priority will be given to

Master's students in nursing.

Activities: Discussion

The course provides advanced content and supports practice in Spanish language skills. The emphasis is on taking a health history, giving physical exam instructions, assessing patient understanding of health, illness, and belief systems, and addressing patient concerns. Proper terminology and correct grammar, applied within the socio-cultural background of selected Latino American groups will be supported. The course is entirely online and conducted entirely in Spanish.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 207B Communicating with the Latino Patient II (1 Units) Spring

Instructor(s): Pilar Bernal De Pheils

Prerequisite(s): Students must demonstrate an advanced level of conversational Spanish to instructor before enrolling in the course

Restrictions: Enrollment by consent of instructor. Priority will be given to

Master's students in nursing.

Activities: Discussion

Course provides advanced content and practice in communicating with Latino women. Emphasis is on selected reproductive health care issues for women including eliciting a health history and providing guidance. Effective communication with appropriate terminology, \r\nattentive to the Latino American woman sociocultural context, will be practiced. Course will address assessment of a women's understanding of reproductive health, and will be offered fully online and will be conducted in Spanish.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 208 Advanced Physiology and Pathophysiology (2 Units) Fall

Instructor(s): Alonya Elgrably, Denise Li

Prerequisite(s): None

Restrictions: None

Activities: Web work

Course integrates and applies system-focused physiologic and key pathophysiologic concepts across the life span that supports the foundation for advanced-level nursing education and practice. Emphasis is on the association of physiological alterations with clinical manifestations.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 209A Comparative Qualitative Research Design (2 Units) Fall

Instructor(s): Orlando Harris
Prerequisite(s): None

Restrictions: Enrollment in Doctoral Program.

Activities: Lecture

Course provides an introduction to the principles and methods of qualitative research, critically analyzing the elements of qualitative research design set within the context of the research question to be asked and the existing knowledge in the area.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course**: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

#### NURSING 209B Quantitative Research Design (2 Units) Fall

Instructor(s): Jerry Nutor

 $\label{preconstruction} Prerequisite (s): Enrollment in \ Doctoral \ Program \ in \ Nursing \ or \ consent \ of$ 

instructor.

Restrictions: Restricted to Doctoral students.

Activities: Seminar

This course provides an overview of quantitative research methods, including study designs, sampling, data collection procedure, instrument validity and reliability, bias, and ethics, along with the skills to critically analyze research studies using of techniques used to conduct systematic reviews of bodies of knowledge and provides strategies to critique the scientific rigor of quantitative research designs.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 209C Quantitative Research Designs - II (3 Units) Spring

Instructor(s): Glenn-Milo Santos

Prerequisite(s): BIOSTAT 187, NURSING 209B

Restrictions: None

Activities: Lecture, Project

Course focuses on integrating commonly used statistical analysis techniques and clinical, health and epidemiological research studies. It provides didactic training and lab demonstrations of different statistical analyses for monitoring patterns, causes, and effects of health and disease conditions in defined populations; investigating predictors of health; evaluating the efficacy of interventions; and interpretation of findings from analyses. It also provides an overview of study methods.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 211 Policy and Leadership (3 Units) Spring

Instructor(s): Linda Stephan, Laura Wagner

Prerequisite(s): none

Restrictions: MS Students

Activities: Lecture

Students will discuss and analyze the ethical principles and professional role development of advanced practice nursing. Students will also explore healthcare policy and its impact on practice, as well as public and social policies that influence health determinants and health care outcomes, and the role of the nurse as an advocate.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 212 Introduction to Biostatistical Computation (2 Units) Fall

Instructor(s): Linda Park

Prerequisite(s): Basic statistics prior to PhD program admission

Restrictions: This course is part of the first year nursing PhD doctoral program. Auditing is not permitted.

Activities: Web work

This course will introduce clinical researchers to the use of computer software for managing and analyzing clinical research data. Currently available statistical packages will be described and the roles of spreadsheet and national database programs discussed. Use of STATA for managing, cleaning, describing, and analyzing data will be taught in lecture and laboratory sessions.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 212A Qualitative Data Collection & Ethics (2 Units) Spring

Instructor(s): Ifeyinwa Asiodu Prerequisite(s): N209A

Restrictions: None

Activities: Lecture

Course examines the construction of qualitative research and ethics in research. Students formulate research questions and design a qualitative study.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 212B Quantitative Measurement & Theory (3 Units) Spring

*Instructor(s):* Jyu-Lin Chen Prerequisite(s): N209B.

Restrictions: none

Activities: Lecture, Seminar, Web work

Course critically evaluates concepts underlying measurement reliability and validity. Construction of measurement tools and their use in quantitative research will be explored.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

#### NURSING 213B Oncologic Emergencies (2 Units) Winter

Instructor(s): Christine Miaskowski

Prerequisite(s): None

Restrictions: Masters of Science students only. No prelicensure students.

Activities: Lecture

Course addresses the theoretical and specific basis for the assessment and management of complex conditions experienced by patients with cancer. Emphasis is on the nursing assessment and management of oncologic emergencies (e.g., spinal cord compression, sepsis, superior vena cava syndrome, disseminated intravascular coagulation).

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### NURSING 213D Common Problems in Older Adult Cancer Care (2 Units) Fall

Instructor(s): Sueann Mark
Prerequisite(s): None

Restrictions: None

Activities: Web work

Course will focus on nursing management of cancer related symptoms, with a specific focus on the older adult physical and mental health status. Content covered will include symptom management during active treatment and survivorship. Application of geriatric-focused assessment and prognostic/outcome prediction tools in the context of aging physiology and cancer pathophysiology will be emphasized.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

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Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 215 Advanced Public Health Nursing (3 Units) Fall

Instructor(s): Kate Holbrook
Prerequisite(s): None.

Restrictions: None.

Activities: Lecture

Course focuses on the foundations of advanced public health nursing to promote and protect the public's health, taking into consideration socioecological contextual factors that influence diverse populations and their interface with community and public health systems.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

## NURSING 215.01 Global Community Health Planning & Interventions (3 Units) Spring

Instructor(s): Kate Holbrook
Prerequisite(s): None.

Restrictions: None.
Activities: Lecture

Course will increase learners' capacities to identify potential health promotion opportunities and prevention problems in vulnerable communities, create a partnership with community members, formulate plans to identify potential health promotion opportunities and the deep roots of health problems, and write proposals to obtain funding that will

School: Nursing

**Department:** Community Health Care Systems

support activities for community-based health projects.

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 216C Introduction to Cardiovascular Diagnostics (1 Units) Spring

Instructor(s): Corey Fry
Prerequisite(s): None

Restrictions: None

Activities: Web work

This course is designed to introduce advanced practice nurses to cardiovascular diagnostic tests and illustrate how to incorporate diagnostics into clinical decision making.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 217C Care of Rural Populations 1 (1 Units) Fall

Instructor(s): Elizabeth Castillo
Prerequisite(s): None

Restrictions: Rural Health Minor students or by permission of FOR

Activities: Web work

This initial course of a 3-quarter series provides foundational knowledge of the impact of the social determinants of health on morbidity, mortality and health outcomes in rural environments. Learners will utilize key rural health concepts to plan community engagement and resource mapping

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 217F Racism, Health Care, and Social Justice (2 Units) Winter

Instructor(s): Lisa Mihaly, Linda Stephan

Prerequisite(s): none

Restrictions: none

Activities: Lecture

The course will introduce learners to the concepts of structural racism and other inequities and the implications for advanced nursing practice. The link between historical events and current health disparities are analyzed. The intersectionality of racism with poverty and other marginalized and underserved communities will be discussed in depth.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 220 Role Development Seminar (2 **Units) Spring**

Instructor(s): Marianne Biangone

Prerequisite(s): none

Restrictions: none

Activities: Seminar, Project

The course focuses on development of a career as a university faculty member. Emphasis will be on understanding how to develop a program of research and develop a reputation in the field. Foci will include teaching, mentoring students, and university/public service. This seminar will develop the skills required for achieving success in an academic career.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 220.05 Clinical Reasoning and** Psychopathology (2 Units) Winter

Instructor(s): Kathleen McDermott, Kara Birch

Prerequisite(s): None

Restrictions: Enrollment in the multi-campus Post-Master PMHNP

Certificate Program

Activities: Web work

Foundational course that presents the science, epidemiology, etiology, and development of mental disorders across the lifespan. The Diagnostic and Statistical Manual of Mental Disorders will guide diagnostic understanding and inform the differential diagnosis. The course prepares the PMHNP student to appraise mental disorders in the context of social determinants of health.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 221.01 Theories in Aging and Palliative Care** Research (2.5 Units) Spring

Instructor(s): Margaret Wallhagen

Prerequisite(s): NURSING 202A or permission of the instructor

Restrictions: Doctoral Student or permission of the instruction

Activities: Lecture, Seminar, Project, Discussion

This course involves a critical investigation of theoretical approaches related to the study of adults as they age and palliative care. Emphasis is placed on bio-psycho-social theoretical perspectives and how these perspectives guide development of science for nursing care of adults across the life spectrum. Students' and others' research programs illustrative of methods for development, testing and implementation of selected theoretical approaches are discussed and critiqued.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 221.05A PMHNP Role Development (1 **Units) Winter**

Instructor(s): Rosalind De Lisser

Prerequisite(s): None

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Lecture, Web work, Workshop

This is the first course in a series which focuses on foundational knowledge and skills for PMHNP role development. It introduces the student to self-reflective practice and principles of psychotherapeutic care. Using in-class simulations, students will learn techniques for establishing and maintaining a therapeutic alliance with individuals across the lifespan.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 221.05B Clinical Formulation for Treatment Planning (1 Units) Spring

Instructor(s): Rosalind De Lisser
Prerequisite(s): N221.05A

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Lecture, Workshop

This course is the second in a series and focuses on assessment, case formulation and treatment planning for PMHNP practice. Using classroom exercises and simulation, students will acquire the ability to develop case formulations and treatment plans for individuals with mental disorders across the lifespan.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 221.05C Treatment Planning for Complex Mental Disorders (1 Units) Spring

Instructor(s): Rosalind De Lisser Prerequisite(s): N221.05A

Restrictions: Enrollment in the multi-campus Post-Master PMHNP

Certificate Program

Activities: Web work

This course is third in a series. Students will focus on assessment and treatment planning for complex cases with multiple comorbidities, including substance use and trauma-related disorders. Students will examine structural barriers and system-level approaches to caring for patients across the lifespan with complex needs. This course supports the student in transition to practice competency as an entry-level PMHNP.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### NURSING 222 Mixed Methods Research (2 Units) Spring

Instructor(s): Karen Schumacher

Prerequisite(s): N209A and N209B or equivalent introductory courses in

qualitative research and quantitative research designs

Restrictions: None

Activities: Lecture, Discussion

This course examines principles and methods of mixed methods research. The emphasis is on application of philosophical and theoretical foundations, study designs, data collection, analysis, and interpretation of results. Students will critically appraise mixed methods studies relevant to their own areas of research and develop a mixed methods research proposal.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 222.05A Foundations in Psychopharmacology and Alternate Therapies (2 Units) Winter

Instructor(s): Andrew Penn, Andrew Hultgren

Prerequisite(s): none

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Web work, Workshop

This is the first course in a series to prepare the PMHNP student for the prescription of psychopharmacology and somatic therapies to treat mental disorders in individuals across the lifespan. The course will provide foundational knowledge of common neuromodulatory therapies and major classes of psychotropic medication to insure safe prescribing.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 222.05B Applications in Psychopharmacology (2 Units) Spring

Instructor(s): Andrew Penn, Andrew Hultgren

Prerequisite(s): 222.05A

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Web work

This is the second in a series to prepare the PMHNP student for prescription of psychotropic medications to treat mental disorders in individuals across the lifespan. The course will evaluate evidence-based therapies for individuals and special populations across the lifespan. This course will examine stigma and sociocultural factors that affect individuals' ability to access and engage in health care. Upon completion the trainee will be eligible for the DATA 2000 X-waiver license.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

## NURSING 222.05C Complex Cases in Psychopharmacology (1 Units) Fall

Instructor(s): Andrew Penn, Andrew Hultgren

Prerequisite(s): 222.05 A, B

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Web work, Workshop

This is the third in a series to prepare the PMHNP student for the prescription of psychotropic medications to treat psychiatric and substance use disorders in individuals across the lifespan. The course is focused on complex cases in psychopharmacology and will and evaluate use of evidence-based therapies for individuals and special populations across the lifespan. This course will examine stigma and structural barriers that affect individuals' ability to access and engage in health care

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 223.05A Psychotherapeutic Interventions Across the Lifespan I (1 Units) Spring

Instructor(s): Monifa Willis, Lydia Anne Bartholow Prerequisite(s): none

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Web work

This is the first course in a series which examines theory, principles, and application of individual, family, and group psychotherapies across the lifespan. This course will address cognitive-behavioral, interpersonal, motivational, dialectical, and psychodynamic approaches to psychotherapeutic intervention.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 223.05B Psychotherapeutic Interventions Across the Lifespan II (2 Units) Summer

Instructor(s): Monifa Willis, Lydia Anne Bartholow

Prerequisite(s): N223.05A

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Web work, Workshop

This is the second course in a series that examines application of individual, family, and group psychotherapies across the lifespan. This course will address group therapies, family systems, attachment and developmental approaches to psychotherapeutic intervention. It is designed to use clinical case materials as the basis for discussion of assessment, engagement, and evaluation of psychotherapeutic interventions within the context of PMHNP practice.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 223.05C Psychotherapeutic Interventions Across the Lifespan III (1 Units) Fall

Instructor(s): Lydia Anne Bartholow Prerequisite(s): 223.05 A & B

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Web work, Workshop

This is the third course in a series which applies knowledge of psychotherapeutic principles to complex cases across the lifespan. This course will address harm reduction, cognitive-behavioral, and interpersonal approaches to psychotherapeutic intervention. Students will explore application of each therapy to PMHNP clinical practice, identifying and evaluating specific therapeutic skills for patient engagement, interviewing, treatment planning, referral and/or intervention.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 223B Theories and Methods of Symptom Science (2 Units) Spring

Instructor(s): Heather Leutwyler, Margaret Wallhagen

Prerequisite(s): None

Restrictions: Approved fellowship application and admission to the Biobehavioral Research Training in Symptom Science, enrolled in the Nursing PhD program, or consent of instructors.

Activities: Seminar

This course is in the series of courses for the Biobehavioral Research Training in Symptom Science. In this course, trainees will gain a working understanding of symptom science, analyze theories and designs appropriate to the study of symptom science and symptom management, and discuss the application of the symptom management model developed at UCSF. The course will also focus on operational definitions and measures of the symptom experience (symptom perception, evaluation and response).

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

## NURSING 225 Cardiac Rhythm: Theory & Analysis (2 Units) Spring

Instructor(s): Michele Pelter

Prerequisite(s): Require instructor approval.

Restrictions: none

Activities: Web work

This course will focus on cardiac electrophysiology in both normal and pathologic states and how these states alter the 12-lead ECG. The focus is on in-hospital monitoring with an emphasis on interpreting 12-lead ECGs. Content includes the physiologic mechanisms of arrhythmias, ischemia/infarction and cardiac abnormalities (i.e., QT prolongation, chamber enlargement). Research in the field of electrocardiology and its application to clinical practice will be discussed.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 229 Philosophy of Nursing Science (3 Units) Fall

Instructor(s): Mijung Park

Prerequisite(s): Doctoral standing or consent of the instructor.

Restrictions: None

Activities: Lecture, Seminar

In this foundational course, students and faculty will review classical and contemporary philosophical viewpoints relevant to nursing science. We will examine salient turning points in the history of epistemology, ontology, and moral philosophies..

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 231A Substance Use & Mental Illness (2 Units) Fall

Instructor(s): Annesa Flentje
Prerequisite(s): None

Restrictions: None
Activities: Lecture

This course will examine illness-related, gender-related and sociocultural factors that affect risk for co-existing psychiatric and substance abuse disorders and ability or willingness to access health care and community services. Models of service delivery will be evaluated for their ability to produce measurable health improvements for populations with these co-existing disorders.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 232.01 Essentials of Pharmacology Across the Lifespan (1 Units) Fall, Winter, Spring

*Instructor(s):* Bridget Gramkowski Prerequisite(s): None.

Restrictions: Neonatal nurse practitioner/CNS, Primary Care Pediatric Nurse Practitioner, or Acute Care Pediatric Nurse Practitioner students

Activities: Web work

The purpose of this online pharmacology course is to provide advanced practice nursing students with an overview of physiologic changes in pharmacokinetics, pharmacodynamics and drug-drug interactions across the life span, as well as legal, regulatory and safety issues related to prescribing in advanced practice nursing.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 232.02 Advanced Clinical Pharmacology (4 Units) Winter

Instructor(s): Kristina Fortes, Michelle Buchholz
Prerequisite(s): Enrollment in graduate nursing program

Restrictions: Enrollment in an adult specialty.

Activities: Web work

Course addresses pharmacotherapeutic and pharmacokinetic concepts across broad pharmacologic agent categories. Key physiologic changes across the lifespan that impact pharmacological agent effect and action is highlighted. Course content builds knowledge and skill to assess, diagnose, and manage common health problems, including relevant legal, regulatory, quality and safety issues relating to advanced practice nurse pharmacologic agent furnishing/drug ordering.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## NURSING 232.04C Management of Psychotropic Regimens (psychopharmacology) (2 Units) Spring

Instructor(s): Andrew Penn

Prerequisite(s): NURSING 232\r\nNURSING 257

Restrictions: Students in Psychiatric-Mental Health Nursing program or permission of instructor.

Activities: Lecture

Course will focus on the development of effective clinical judgment in the psychopharmacological treatment of patients with mental illness. It will cover the major mental illnesses, as well as treatment considerations of special populations.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 232.05 Antibiotic Therapeutics in Acute Care (2 Units) Fall, Summer

Instructor(s): Lisa Guertin
Prerequisite(s): NURSING 232.02

Restrictions: Students in the Department of Physiological Nursing

Program or by permission of the Instructor.

Activities: Seminar, Web work

The course provides instruction in the selection of antimicrobial therapy for acutely ill/hospitalized adults and principles of antimicrobial stewardship. This is web-based course contains 9 modules on selected topics such as pulmonary, skin, cardiac, and neurological infections. There are 1-2 mandatory remote seminars.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 232.05A Pathophysiology and Pharmacology in Pediatric Primary Care (0.5-3 Units) Spring

Instructor(s): Bridget Gramkowski, Fania Lazarov Prerequisite(s): Past or concurrent enrollment in N232.01 or N232.02

Restrictions: None
Activities: Lecture

This course provides a conceptual approach to pediatric pathophysiology and pharmacology. Emphasis is placed on evidenced based decision-making, minimizing adverse reactions and maximizing outcomes for children with common ambulatory conditions. This course also provides an overview of physiologic changes in pharmacokinetics, pharmacodynamics and drug-drug interactions across the life span, as well as legal, regulatory and safety issues related to prescribing.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 232.05B Pathophysiology and Pharmacology in Pediatric Complex Care (2-3 Units) Fall

Instructor(s): Mary Anne Israel, Fania Lazarov
Prerequisite(s): N232.01 AND N283B OR N254.01; or other foundational
pediatric pharmacology and pathophysiology course as approved by
instructor

Restrictions: None

Activities: Lecture, Web work

This course provides a conceptual approach to pediatric pathophysiology and pharmacology as it relates to the therapeutic management of children with complex conditions encountered in the chronic or urgent care setting. Emphasis is placed on current research to guide decision-making, minimizing adverse reactions and maximizing outcomes for children with complex treatment regimens. This course builds on content from the N232.05A Pathophysiology and Pharmacology in Primary Pediatric Care course.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e. pursuing Master or PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

## NURSING 232.06 Advanced Pharmacology for the ACPNP (4 Units) Fall

Instructor(s): Brittany Christiansen

Prerequisite(s): Active enrollment as an Acute Care Pediatric Nurse Practitioner specialty graduate or post-graduate student, or instructor approval.

Restrictions: Course enrollment is limited to ACPNP students or approval of the FOR.

Activities: Lecture, Seminar, Web work

This course is the application of pharmacotherapeutic principles in pediatric acute care settings. Concepts highlight evidence-based decision-making, minimizing adverse reactions and potential drug-drug interactions, and maximizing beneficial health outcomes for children with complex acute, critical, and chronic health conditions. This course also provides an overview of legal, regulatory, and safety issues related to prescribing.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 233A Foundations of Research, Data** Analytics and Analysis I (3 Units) Winter

Instructor(s): Ulrike Muench Prerequisite(s): n/a

Restrictions: n/a

Activities: Lecture, Seminar

Foundational 2-course sequence (N233A/B) for students to engage in scholarly activity using data for informed evidence-based policy and decision making. In N233A, students will learn to identify key components of the research process, prepare, and manage data for analysis, and conduct and interpret descriptive analyses. Followed by N233B.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 233B Foundations of Research. Data **Analytics and Analysis II (3 Units) Spring**

Instructor(s): Ulrike Muench

Prerequisite(s): completion of N233A

Restrictions: completion of N233A

Activities: Lecture, Seminar

Foundational 2-course sequence. Builds upon the skills of N233A towards preparing students to engage in scholarly activity using data to inform evidence-based policy and decision making as well as being a critical user of scientific literature. This includes managing data for analysis, applying statistical software to test hypotheses, generating graphs and tables to disseminate results, and critiquing strengths and weaknesses of qualitative and quantitative studies.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 234.02A Advocacy, Community Engagement,** QI & Leadership Part I (1.5 Units) Spring

Instructor(s): Elizabeth Gatewood

Prerequisite(s): none

Restrictions: permission of instructor

Activities: Seminar, Fieldwork, Project, Web work, Workshop

This course is the first in a series of two focused on advocacy, community engagement, quality improvement and leadership. It is an interprofessional program, completed in collaboration with the UCSF Family Medicine Residency. This program is designed to help students develop skills to serve as collaborators and leaders. Students will complete QI modules, attend weekly seminars, panel discussions, site visits, and identify a community partner organization for collaboration in the second quarter.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? Yes

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **NURSING 234C Evidence-Based Project Proposal Development (2 Units) Fall, Summer**

Instructor(s): Peterson Pierre, Lin Lin

Prerequisite(s): None

Restrictions: None

Course provides the learner with a simulated learning experience in planning an evidence-based small test of change quality or process improvement project. Learners will identify a clinical problem or process suitable for a small test of change project and develop a project plan that includes appropriate measureable outcomes. Quality/process improvement concepts as well as patient safety principles will provide the theoretical basis for project proposal development.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 238A Child Development and Alterations in Behavior (2 Units) Winter

Instructor(s): Celina Trujillo Prerequisite(s): None.

Restrictions: None.
Activities: Lecture

Course is designed to provide the student with a scientific basis for understanding the normal pattern of development in the infant and child (birth- 12 years of age). Building on knowledge of normative development, common behavioral issues and mental health concerns that are encountered by advanced practice nurses in primary care and specialty settings will be reviewed.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 238B Child/Adolescent Behavioral and Mental Health Conditions (1-2 Units) Winter

Instructor(s): Bridget Gramkowski

Prerequisite(s): NURSING 238A or permission of instructor.

Restrictions: None
Activities: Web work

This course will cover an overview, assessment, management and collaborative care of common behavioral and mental health conditions of childhood and adolescence. A one unit option is designed as an overview. The two unit option includes greater depth on assessment, diagnosis, comanagement and referral. The course fulfills competencies for PNP and PMHNP students.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### NURSING 240.11 Occupational & Environmental Health Research Seminar (1 Units) Fall, Winter

Instructor(s): Oi Saeng Hong

Prerequisite(s): Consent of instructor.

Restrictions: None
Activities: Lecture

Seminar focuses on design and practical implementation of research on factors at work and in the environment that affect community health. Theoretical, ethical, policy and procedural issues related to occupational and environmental health research will be discussed. Students and faculty will bring examples from their research for discussion and problem-solving.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 240.16 Research Issues in Aging: Interdisciplinary Perspectives (2 Units) Winter

Instructor(s): Margaret Wallhagen

Prerequisite(s): None.

Restrictions: First year PhD students, DNP students, and Master's student

may participate with prior approval of faculty.

Activities: Lecture

Critical examination of research in aging, focusing on collaborative, interdisciplinary research (i.e., nursing, medicine, geropsychiatry, and the social and behavioral sciences). Emphasis will be on the interdisciplinary research process and methodological and theoretical frameworks.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 241.06 Professional Issues in Midwifery and WHNP Practice (1 Units) Summer

Instructor(s): Kim Dau

Prerequisite(s): Nurse-Midwifery Specialty or COI

Restrictions: Nurse-Midwifery/Women's Health NP students only.

Activities: Lecture

This course focuses on a critical analysis of current issues in nursemidwifery, including issues in maternal and child health, effecting policy, the legal basis of practice, beginning skills for establishing practice and ensuring quality in nurse-midwifery practice settings. This course provides professional content necessary for practice as a certified nursemidwife.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### NURSING 241.10 Professional Seminar- Family Nurse Practitioner (0.5 Units) Winter, Spring

Instructor(s): Elizabeth Gatewood

Prerequisite(s): None

Restrictions: 2nd year Family Nurse Practitioner students only.

Activities: Seminar

Professional Seminar offers 2nd year Family Nurse Practitioner students content on transitioning into the FNP role and additional clinical content on management of emergent and difficult clinical situations. This course provides students with experience in career building, including resume writing, job applications and negotiations, and licensure and certification application. Additional content includes patient satisfaction metrics and techniques, and ways to not miss emergent conditions.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### NURSING 242A Foundations of HIV Clinical Care (1-2 Units) Fall, Winter

Instructor(s): Roland Zepf, Janessa Broussard

Prerequisite(s): None.

Restrictions: None.

Activities: Seminar, Web work

Course provides an overview of the HIV-related epidemiological concepts, screening and diagnosis, basic HIV primary care, co-occurring conditions, prevention of HIV, and key populations.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### NURSING 242B HIV/AIDS: Clinical Pharmacology (1 Units) Spring

Instructor(s): Janessa Broussard, Jennifer Huggans-Zapeta
Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Seminar, Web work

Course will introduce the clinical application of pharmacology in the management of HIV-infected adults and adolescents based on the current US DHHS Treatment Guidelines for Antiretroviral Therapies and The Prevention of Opportunistic Infections.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 242D HIV Complex Clinical Management** Seminar (0.5 Units) Fall, Winter, Spring

Instructor(s): Janessa Broussard

Prerequisite(s): NURSING 242A\r\nNURSING 242B

Restrictions: Second year nurse practitioner (NP) or clinical nurse

specialist (CNS) students or permission of instructor.

Activities: Web work

This course provides content on the clinical management of HIVinfected adolescents and adults with an emphasis on HIV complex chronic disease management and common HIV-related conditions and comorbidities. Students should have a basic knowledge of HIV epidemiology and HIV pharmacology.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 242E HIV Grand Rounds (0.5 Units) Fall, Winter, Spring

Instructor(s): Janessa Broussard

Prerequisite(s): NURSING 242A, NURSING 242B

Restrictions: This course may be repeated up to 3 consecutive terms, and may not be taken for more than 3 terms.

Activities: Web work

In this course, students will attend HIV/AIDS Grand Rounds at Zuckerberg San Francisco General (in-person or online) to attain the latest clinical, diagnostic, research, and treatment information regarding the pathogenesis and management of HIV. Students will be expected to attend and participate in weekly hour long grand rounds offered UCSF Division of HIV Infectious Diseases and Global Medicine. This course may be repeated up to 3 consecutive terms, and may not be taken for more than 3 terms.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 243B Group Psychotherapies (2 **Units) Winter, Summer**

Instructor(s): Bethany Phoenix, Aaron Miller

Prerequisite(s): None.

Restrictions: None.

Activities: Web work, Lab skills

This course examines and discusses theories and practice of various group modalities in current use. Emphasis is on understanding and promoting therapeutic processes in types of groups commonly facilitated by advanced practice nurses.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 243C Adult Psychotherapeutic Treatment Modalities (2 Units) Winter**

Instructor(s): Annesa Flentje

Prerequisite(s): N257 or equivalent content.

Restrictions: Enrollment in Psychiatric/Mental Health specialty area or

consent of instructor.

Activities: Lecture

Course focuses on principles of supportive psychotherapies with adults experiencing a range of psychiatric problems. It also reviews models of crisis intervention, behavioral, cognitive behavioral, and motivational interventions. It is designed to use clinical case materials as the basis for discussion of assessment, goal setting, and intervention.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

### NURSING 244A Managing the Psychological Impacts of Traumatic Events (1 Units) Summer

Instructor(s): Bethany Phoenix
Prerequisite(s): None

Restrictions: None

Activities: Lecture

Course examines theories from social, behavioral and neurosciences to explain psychobiological responses to different types of trauma. It applies developmental theories to understand effects of traumatic events on persons across the lifespan. It explores assessment and intervention of individuals, families and populations with past or current physical, sexual and emotional violence, as well those experiencing natural or manmade disasters. Course emphasizes both acute and chronic responses.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 245.04 Pediatric Health Promotion & Protection (3 Units) Fall

*Instructor(s):* Linda Stephan, Adam Leonard Prerequisite(s): None.

Restrictions: Enrollment limited to 1st year PNP and FNP students; others may enroll only with permission of instructor.

Activities: Lecture

This course investigates pediatric health promotion, clinical prevention, and population health through course readings, lectures, and case discussions. Evidenced-based approaches for individual level interventions are analyzed, and community and systems level interventions are explored.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 245.05 Health Promotion & Disease Prevention in Acute Care (2 Units) Spring

Instructor(s): Scott Weyland, Lisa Guertin

Prerequisite(s): None

Restrictions: Enrollment in the Adult-Gerontology Acute Care Nurse

Practitioner students or prior approval from instructor.

Activities: Web work

The course provides specialty content necessary for AG-Acute Care Nurse Practitioners to institute health promotion, maintenance and disease prevention in the care of stable, hospitalized patients. This content will enhance understanding of the inter-relatedness of health promotion and disease prevention aspects within and across various cultural groups in an acute care setting. This course is an online course that meets the ANCC course requirement health promotion and disease prevention.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 245.06 Health Promotion for Chronically-Critically III Children (3 Units) Winter

Instructor(s): Brittany Christiansen

Prerequisite(s): None

Restrictions: Students must be enrolled in the Acute Care Pediatric Nurse Practitioner Specialty or have permission of the faculty to enroll in course.

Activities: Lecture, Web work

Course focuses on the application of culturally sensitive pediatric health promotion strategies with the ethical integration of life-sustaining healthcare for chronically-critically ill children in varied health care environments. Emphasis is placed on the application of foundations of pediatric health promotion including assessing growth and development, health screening, vaccinations, and surveillance for health and behavioral/mental health disorders while providing life-sustaining care.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 245.28 Seminar in Adult Gerontology Primary** Care (1 Units) Spring

Instructor(s): Helen Horvath

Prerequisite(s): This seminar is limited to students in the AGNP, AGNP-HIV and AGNP-OEH specialty tracks. Students must have completed N270 and Specialty Track Advanced Health Assessment Skill Lab, and be currently enrolled in N245A Clinical Prevention and Population Health.

Restrictions: None Activities: Seminar

The N245.28 Seminar provides students with content in risk assessment, application of evidence-based clinical prevention strategies and skill development in selected health promotion activities for the purpose of providing primary care to adolescents and adult's health across the adult lifespan.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **NURSING 245A Clinical Prevention and Population** Health A (1-2 Units) Spring

Instructor(s): Chelsea Landolin

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Seminar, Web work, Workshop

Course investigates clinical prevention, health promotion, and population health concepts in relationship to health through literature review and case studies. Evidenced-based, epidemiologic, population health approaches will be applied to healthcare decision making at all levels of prevention at both the individual and system levels.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 246 Symptom Assessment & Management (3 **Units) Winter**

Instructor(s): Elizabeth Gatewood

Prerequisite(s): N270

Restrictions: None

Activities: Web work, Discussion

This course introduces students to signs and symptoms of illness across the life span that are commonly encountered. Symptoms and signs will be analyzed using a clinical decision-making model. The underlying causes and appropriate management of common illness' are discussed.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 246.02A Seminar in Family Primary Care (2) **Units) Winter**

Instructor(s): Andrea Kuster, Sarah Nathan, Jennifer Huggans-Zapeta,

Abbey Roepke

Prerequisite(s): Completion of or concurrent enrollment in N246

Restrictions: Not open to students who are taking or have already

completed N246.02B

Activities: Seminar

Seminar is taken concurrently with N246 Symptom Assessment and Management, and provides specialty content necessary for family primary care nurse practitioners. Application from N246 lectures will be made using case presentations and other relevant learning strategies.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

### NURSING 246.02B Seminar in Family Primary Care (2 Units) Winter

 ${\it Instructor}(s) \hbox{: Andrea Kuster, Sarah Nathan, Jennifer Huggans-Zapeta,}$ 

Mary Massella

Prerequisite(s): completion of or concurrent enrollment in N246

Restrictions: Completion of or concurrent enrollment in N246.\r\nNot

open to students who have taken and passed 246.02A.

Activities: Web work

This online seminar is taken concurrently with N246 Symptom Assessment and Management, and provides specialty content necessary for family primary care nurse practitioners. Application from N246 lectures will be made using case presentations and other relevant learning strategies.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## NURSING 246.04A Clinical Reasoning, Symptom Assessment and Management (3 Units) Winter

Instructor(s): Linda Stephan

Prerequisite(s): Successful completion of N245.04 Pediatric Health Promotion and Protection, and NSL 413.11 Advanced Practice Nursing Skills Lab in Pediatrics.

Restrictions: None

Activities: Lecture, Discussion

This course introduces students to symptom presentation and related conditions commonly encountered in pediatric primary care. The patients' clinical presentations, differential diagnosis, diagnostic approaches, and appropriate management are discussed.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 246.04B Clin Reasoning, Dx and Mgmt of Common Acute Ped Conditions (2 Units) Spring

Instructor(s): Mary Gallagher Prerequisite(s): N246.04A

Restrictions: Restricted to students in the PNP-PC specialty

Activities: Seminar

This course prepares the student to apply knowledge of pediatric healthcare maintenance, pathophysiology, pharmacology and symptom assessment to the management of complex well-child and common acute pediatric illness. Through problem-based learning and other didactic learning strategies, students will build upon differential diagnosis skills and develop basic proficiency in the formulation of an evidenced based treatment plan for common pediatric primary care chief complaints.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### NURSING 246.04C Clin Reasoning, Diagnosis and Mgmt of Complex Ped Conditions (2 Units) Fall

Instructor(s): Bridget Gramkowski Prerequisite(s): N246.04A

Restrictions: restricted to students enrolled in the PNP-PC specialty

Activities: Web work

This course introduces the student to concepts related to the management of complex or chronic pediatric illness in the primary care setting. Through problem-based learning and other didactic learning strategies, students will apply foundational knowledge of differential diagnoses and management to the assessment and management of complex conditions in the context of pediatric primary care.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 246.04D Clin Reason & Collaborative Mgmt of Specialty Ped Conditions (2 Units) Winter

Instructor(s): Bridget Gramkowski
Prerequisite(s): N246.04A,B,C

Restrictions: restricted to students enrolled in the PNP-PC specialty

Activities: Seminar, Workshop

This course advances student skills related to the management of pediatric complex conditions and introduces concepts related to the care of children with chronic conditions in the specialty care setting. Through problem-based learning and other didactic learning strategies, students will refine skills in the assessment and management of complex conditions in pediatric primary care and learn strategies for effective collaboration and coordination of care with pediatric specialists.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** No **Is this a web-based online course?** Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 246.04E Clinical Reasoning and the Role of the Pediatric APRN (1 Units) Spring

*Instructor(s):* Bridget Gramkowski Prerequisite(s): N246.04A, B, C, D

Restrictions: restricted to students in the PNP-PC specialty

Activities: Seminar, Web work

This course incorporates skills related to assessment, diagnosis and management of well and ill children, and prepares students for the transition to leadership and independent clinical practice across settings. Through problem-based learning and other didactic learning strategies, students will refine skills in the comprehensive care of children and learn to integrate them within the context of professional role development and state and federal standards for safe and ethical practice.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 246.06 Nurse-Midwifery Primary Care Seminar (1 Units) Winter

Instructor(s): Carrie Evans

Prerequisite(s): Completion of N270 Advanced Health Assessment and N208 Advanced Physiology and Pathology. N246 past or concurrent; or COL

Restrictions: Enrollment in Nurse-Midwifery/WHNP specialty and concurrent enrollment in N246.

Activities: Seminar

Seminar provides specialty content necessary for primary care nursemidwives and women's health nurse practitioners. Application from NURSING 246 lectures will be made using case presentations and other relevant learning strategies.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 246.28 Seminar in Adult Gerontology Primary Care (1 Units) Winter

Instructor(s): Jim Gatewood

Prerequisite(s): Must be concurrently enrolled N245B and N246 or w/

consent of instructor

Restrictions: see prerequisites

Activities: Seminar

The N246.28 seminar provides content specific to the Adult Gerontology Nurse Practitioner role in assessment and management of symptoms commonly encountered in primary care of adults across the lifespan. Seminar is taken concurrently with N246 Common Symptom Assessment & Management and application from N246 lectures will be made through case-based discussions.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 247 Management of Complex Health Problems (1.5-3 Units) Fall

Instructor(s): Miranda Surjadi

Prerequisite(s): Enrollment in Family Nurse Practitioner, Adult-Gerontology Nurse Practitioner, Psychiatric Mental Health Nurse Practitioner or Midwifery programs, or consent of instructor.

Restrictions: none
Activities: Lecture

Course introduces the more complex health problems encountered in primary care. Clients clinical presentation, underlying causes and appropriate treatment are discussed. Separate specialty track seminars permit elaboration of problems as they occur in the specialty.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 247.02A Seminar in Family Primary Care (3 Units) Fall

Instructor(s): Kristen Peek

Prerequisite(s): N246 and concurrent enrollment in N247.

Restrictions: None
Activities: Seminar

Seminar is taken concurrently with N247 and provides the specialty content necessary for family primary care nurse practitioners. Application from N247 lectures will be made to the specialty area using case presentations and relevant learning strategies.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### NURSING 247.02B Seminar in Adv Family Primary Care (2 Units) Spring

Instructor(s): Lisa Mihaly, Andrea Kuster, Sarah Nathan Prerequisite(s): N246, N246.02, N247, N247.02A, N270 or consent of instructor

Restrictions: Not open to students who are taking or have already completed N247.02C

Activities: Seminar

Advanced specialty seminar to extend knowledge of the varied scope of problems in family primary care. Advanced skill training in case presentation and management that represents integration of prior theoretical and clinical course work.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 247.02C Seminar in Advanced Family Primary Care (2 Units) Spring

Instructor(s): Lisa Mihaly, Sarah Nathan, Andrea Kuster, Jennifer Huggans-

Prerequisite(s): N246, N246.02, N247, N247.02A, N270 or consent of instructor

Restrictions: Not open to students who are taking or have already completed N247.02B  $\,$ 

Activities: Web work

Advanced specialty seminar to extend knowledge of the varied scope of problems in family primary care. Advanced skill training in case presentation and management that represents integration of prior theoretical and clinical course work.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

## NURSING 247.28A Seminar in Adult Gerontology Primary Care (1 Units) Fall

Instructor(s): Yoonmee Joo Prerequisite(s): Nursing 246.28.

Restrictions: Concurrent enrollment or completion of N247 or by consent

of the instructor.

Activities: Seminar

Seminar will provide students the opportunity to explore key concepts and approaches that will support their primary care provider role within the context of a patient-centered health home.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### NURSING 247.28B Adult-Gerontology Primary Care: Complex Health Problems (2 Units) Winter

Instructor(s): Yoonmee Joo Prerequisite(s): NURSING 247

Restrictions: Course is restricted to students in the Adult-Gerontology NP

Program

Activities: Lecture, Seminar

Class provides the opportunity to enhance clinical problem-solving and decision making; and develop clinical care management plans for complex chronic illnesses in adolescents and adults throughout the lifespan. This course will also emphasize the care of the older adult with multiple chronic conditions. The class format includes case study analyses with student presentations and student led discussion.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NURSING 247.28C Decision-Making in Adult Gerontology Primary Care (3 Units) Spring

Instructor(s): Anna Strewler Prerequisite(s): N247

Restrictions: None

Activities: Seminar

This course provides students with exposure to important concepts that have significant impact on the ethical, legal and clinical aspects of professional practice as an Adult Gerontology Primary Care Nurse Practitioner.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 248 Group Independent Study (0.5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study

Students collaborate in clinical investigations and other studies of special problems in nursing and health sciences or health policy under the direction of faculty. Students may select areas related to their long-term interests and future research or clinical program.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 249 Independent Study (0.5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study

Student undertakes an individual study with emphasis on special problems in nursing. Students may select an area of study which is related to their area of interest or future goals.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Condition Conventional attack Conde. B(NIR (December 1) are S(I))

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 250 Nursing Qualifying Examination (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Admission to doctoral study, completion of PhD core foundational coursework, and consent of instructor.

Restrictions: Students enroll in this course prior to advancing to candidacy, while preparing for their written and oral qualifying examination.

Activities: Project

This course offers students the opportunity to conduct research in preparation for their qualifying examination under the supervision and mentorship of faculty, usually the student's advisor or qualifying examination committee member(s).

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

## NURSING 251.01 Proposal and Grant Writing (2 Units) Spring

Instructor(s): Sandra Weiss
Prerequisite(s): None

Restrictions: 2nd Year Nursing PhD or with consent of instructor

Activities: Lecture

This course provides an introduction to the principles and methods of proposal writing used in preparing a grant proposal. The coursework provides content on the process for good proposal development, key elements and sections of a proposal, necessary information to include in a grant proposal, and development of a budget.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 251.02 Advanced Gerontology Writing Seminar (1 Units) Fall, Winter, Spring

 ${\it Instructor}(s){\rm : Heather\ Leutwyler,\ Margaret\ Wallhagen}$ 

Prerequisite(s): none

Restrictions: Doctoral student

Activities: Seminar, Web work

The course is designed for doctoral students with an interest in Gerontology who are preparing to write either their qualifying examination papers or dissertation.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 252B Psychotherapeutic Techniques with Children and Youth (2 Units) Spring

Instructor(s): Monifa Willis

Prerequisite(s): N257 and N227 or consent of instructor.

Restrictions: None.

Activities: Lecture, Web work

This course introduces the use of psychotherapy for treatment of cognitive, emotional and behavioral problems experienced by children and adolescents. Content builds upon a developmental framework, as well as a basic understanding of patient-centered clinical practice, including individual and family strengths, resiliency, and cultural identity. Evidence-based and best practices in psychotherapeutic modalities are introduced within the context of PMHNP practice.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 253 Theories of the Health Policy Process (3 Units) Fall

Instructor(s): Stella Bialous
Prerequisite(s): none

Restrictions: none

Activities: Lecture, Independent Study, Project

Course provides an introduction to critical thinking, policy, and ethical reasoning about the discipline of nursing and its contributions to policy discourse. Includes comparative analyses/critique of theoretical application. Focuses on learning and using theories of the policy process, including analyzing how health policy is constructed. Perspectives on agenda setting, media roles, advocacy, policy innovation, diffusion and implementation will be integrated with examples of policy problems.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 254.01 Neonatal & Infant Pathophysiology (3 Units) Spring

Instructor(s): Jana Kohler Prerequisite(s): NA

Restrictions: Neonatal NP/CNS students only

Activities: Lecture

Course supports a comprehensive exploration of pathophysiologic phenomena in the cardiac, respiratory, gastrointestinal and neurologic systems in the fetus, neonate and infant. Clinical presentation, associated symptomatology and therapeutic management strategies will be discussed.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 254A Advanced Practice Neonatal Nursing Pathophysiology & Pharm A (4 Units) Winter

Instructor(s): Amy Renfro, Chrissy Smith

Prerequisite(s): None

Restrictions: For Neonatal Nurse Practitioner or Neonatal Clinical Nurse

Specialist students

Activities: Seminar, Web work

This course will explore neonatal physiology, pathophysiology and pharmacology as it is related to the Cardiac, Respiratory and Gastrointestinal systems. The course format will include didactic presentations, case study presentations, forum discussions and case review and preparation for NCC and AACN certification.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 254B Advanced Practice Neonatal Nursing** Pathophysiology & Pharm B (3 Units) Spring

Instructor(s): Amy Renfro Prerequisite(s): 254A

Restrictions: This course is for neonatal nurse practitioner and clinical

nurse specialist students.

Activities: Seminar, Web work

This course will explore neonatal physiology, pathophysiology and pharmacology as it is related to the Neurology, Immunology and Hematology systems. The course format will include didactic presentations, case study presentations, forum discussions and case review in preparation NCC and AACN certification.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 254C Advanced Practice Neonatal Nursing** Pathophysiology & Pharm C (3 Units) Fall

Instructor(s): Chrissy Smith, Amy Renfro Prerequisite(s): N254A, N254B

Restrictions: This course is for neonatal nurse practitioner and clinical nurse specialist students.

Activities: Seminar, Web work

This course will explore neonatal physiology, pathophysiology and pharmacology as it is related to the the Renal, Endocrine, and Dermatologic systems. The course format will include didactic presentations, case study presentations, forum discussions and case review in preparation for NCC and ACCRN certification.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 255.06 Pediatric Diagnostic and Therapeutic** Interventions (3 Units) Fall, Winter, Spring

Instructor(s): Brittany Christiansen

Prerequisite(s): Concurrent enrollment in NURSING SKILLS LAB 413.13 or instructor approval.

Restrictions: Course enrollment is limited to ACPNP students or FOR approval.

Activities: Lecture, Web work

This course provides students with the opportunity to obtain basic and advanced diagnostic and therapeutic intervention knowledge for evaluation and management of infants, children, and adolescents with complex acute, chronic, and critical health conditions. Focus is on the selection of appropriate laboratory testing and diagnostic and/or therapeutic interventions to guide the formation of differential diagnoses and ethical decision-making with emphasis on evidence-based practice concepts.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 255A Diagnosis & Treatment of Acutely III/ Iniured. I (2 Units) Fall

Instructor(s): Corey Fry

Prerequisite(s): NURSING 255C, NURSING 288F

Restrictions: Acute Care Nurse Practitioner student, Clinical Nurse Specialist student or consent of instructor.

Activities: Lecture, Seminar

This course is third in a series of four disease management courses that focus on the diagnosis and treatment of acute care illnesses affecting adult and older adult patients. Learners synthesize pathophysiologic concepts using evidence-based resources to analyze clinical data and formulate differential diagnoses, select diagnostics, and develop management strategies. The course objectives are met through prerecorded lectures, synchronous didactic content, and case study analyses.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 255B Diagnosis & Treatment of Acutely III/ Injured II (2 Units) Winter

Instructor(s): Andrea Saito

Prerequisite(s): NURSING 255C, NURSING 288F, NURSING 255A

Restrictions: None

Activities: Lecture, Seminar

This course is fourth in a series of four disease management courses that focus on the diagnosis and treatment of acute care illnesses affecting adult and older adult patients. Learners synthesize pathophysiologic concepts using evidence-based resources to analyze clinical data and formulate differential diagnoses, select diagnostics, and develop management strategies. The course objectives are met through prerecorded lectures, synchronous didactic content, and case study analyses.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 255C Diagnostic & Therapeutic Interventions (2 Units) Spring**

Instructor(s): Alonya Elgrably

Prerequisite(s): Acute Care Nurse Practitioner or Clinical Nurse Specialist.

Restrictions: 1st year or post-master's AGACNP and CNS students.

Activities: Lecture, Discussion

This course is one of four disease management courses that focus on the diagnosis and treatment of acute and chronic illnesses affecting adult and older adult patients. Learners synthesize pathophysiologic concepts using evidence-based resources to analyze clinical data and formulate differential diagnosis, select diagnostics, and develop management strategies. The course objectives are met through prerecorded lectures, synchronous didactic content, and case study analyses.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 257 Assessment & Management of Common Psychiatric Symptoms (2 Units) Fall**

Instructor(s): Bethany Phoenix, Cherry Leung

Prerequisite(s): Enrollment in a clinical masters specialty or consent of the instructor.

Restrictions: None. Activities: Web work

Course introduces students to common psychiatric symptom presentations and related conditions that are encountered by advanced practice nurses in primary care and specialty settings. Course discusses clinical presentation, underlying causes and appropriate management for patients across the life span.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 259.01 Sexual and Reproductive Health (1-2) Units) Fall

Instructor(s): Sarah Nathan Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Web work

Course provides exploration of theories, concepts and knowledge necessary to maintain and promote women's health. Emphasis is on application of current research regarding clinical decision-making and management of common gynecological conditions, normal pregnancy and postpartum in collaboration with health team members.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

### NURSING 259.02 Complex Issues in Sexual and Reproductive Health (2 Units) Spring

Instructor(s): Cynthia Belew

Prerequisite(s): Consent of instructor.

Restrictions: None
Activities: Lecture

Learners will analyze theory and clinical management of health conditions, diseases and disorders related to sexual and reproductive health, including that of gender non-conforming individuals, in the reproductive and post-reproductive years, in the context of a biopsychosocial framework, and cultural components. Emphasis is placed on critical analysis of research, consultation, collaboration and/or referral as indicated.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 259.04A Contraception in Primary Care (1 Units) Fall

Instructor(s): Becca Neuwirth
Prerequisite(s): None

Restrictions: CNM students must enroll with Letter Grade option; other students may choose Letter Grade or S/U.

Activities: Web work

This self-paced online modular course (with optional in-person sessions) explores sexual and reproductive issues and clinical care in the primary care setting, including contraception and unintended pregnancy within the context of the family and community environment. Course will cover best practices in managing pharmaceutical therapeutic and devices as well as pregnancy prevention and unintended pregnancy.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory) **Graduate Division course**: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 259.04B Contraception, Sexual & Reproductive Health in Primary Care (1 Units) Fall

Instructor(s): Cynthia Belew Prerequisite(s): None

Restrictions: None
Activities: Web work

This self-paced modular course (with optional in-person sessions) explores sexual reproductive issues and associated primary care including contraception and unintended pregnancy within the context of the family and community. Course content will focus on reproductive physiology, social and ethical issues, preconception and peri-conception care, as well as screening of persons with disabilities or those experiencing violence.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 261 Climate Change, Health, and Social Justice (2 Units) Spring

Instructor(s): Susan Chapman, Orlando Harris

Prerequisite(s): None

Restrictions: None: Course is open all nursing students and students from other schools also welcome. Students from any school can take course for credit

Activities: Lecture, Project, Discussion

This course focuses on climate change and how it impacts on health, equity, and issues of social (i.e., environmental, economic, and racial) justice. Students will engage in active learning including student group projects in community engagement, creating policy briefs, and conducting advocacy at a local, national, or global level.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 262 Foundation in Nursing Scholarship (3 Units) Spring

Instructor(s): Jerry Nutor, Andrea Kuster

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Web work

This foundational course in scholarship is designed to provide the advanced-level nurse with the necessary knowledge and skills to analyze and utilize research and other evidence during administrative or clinical decision-making. The course is designed to facilitate evaluation of the research process, development of clinical questions, and the critical appraisal of research papers, with an equitable approach in their practice as advanced-level clinicians and leaders in their nursing disciplines.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NURSING 262A Advanced Scholarship in Research I (2 Units) Winter

Instructor(s): Linda Park, Laura Wagner, Natalie Wilson

Prerequisite(s): none

Restrictions: Graduate Nursing Students

Activities: Lecture

This course focuses on the elements of research methods, and design that are essential to the translation of knowledge into clinical practice, administration/leadership, and health policy.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course**: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NURSING 262B Utilization of Research in Evidence-Based Practice (2 Units) Spring

Instructor(s): Sandra Staveski, Jerry Nutor Prerequisite(s): NURSING 262A

Restrictions: none

Activities: Lecture, Web work

Course expands and integrates the research methods content covered in N262A. Students will focus on the critical evaluation of research literature as the foundation for evidence-based practice and research. Emphasis is on evaluating the strength of each single study and of a body of research studies.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 263 DNP Prologue (2 Units) Fall

Instructor(s): Annette Carley, KT Waxman

Prerequisite(s): None

Restrictions: This course is only open to DNP students

Activities: Lecture, Workshop

This is the first course of the Doctor of Nursing Practice (DNP) curriculum, and provides foundational content to support student success in the program. During this course, students will identify clinical problems, conduct literature searches and curate artifact evidence that can be used to construct a professional portfolio. Students will also develop basic skills in writing, presenting and working in small groups during this in-person course.\r\n

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 263.1 DNP Intersession (1 Units) Fall

Instructor(s): Annette Carley, KT Waxman

Prerequisite(s): No

Restrictions: Open only to DNP students

Activities: Workshop

This second of three in-person immersion courses provides the opportunity for Doctor of Nursing Practice (DNP) program students to continue development of leadership and scholarly expertise. Students will have opportunities during in-person activities to showcase their scholarly work before an extended audience, including other DNP students just embarking on their program of study. The course will include concentrated in-person activities augmented by supplemental online/virtual activities.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### NURSING 263.11 Concepts and Contemporary Issues for the DNP (3 Units) Fall

Instructor(s): Annette Carley, Elena Capella

Prerequisite(s): None

Restrictions: This course is only open to DNP students

Activities: Seminar, Web work

In this first-quarter foundational course, the student will utilize critical thinking to evaluate nursing science and the impact on contemporary healthcare. Scientific theories and conceptual frameworks forming the foundations of knowledge and clinical scholarship for nursing practice will be discussed. Middle range theories and concepts will be evaluated for their utility in examining contemporary healthcare issues and in supporting clinical inquiry, interventions and enhanced patient outcomes.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 263.12 Critical Appraisal of Evidence-Based Practice (3 Units) Fall

Instructor(s): Lisa Lommel, Juli Maxworthy

Prerequisite(s): None

Restrictions: This course is only open to DNP students

Activities: Seminar, Web work

In this first-quarter foundational course, the DNP student will generate clinical questions, and critically appraise and translate evidence into practice. Evidence-based practice appraisal frameworks will be used to support decision making and development of strategies and processes that promote high quality, safe, effective, and equitable patient-centered care

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 263.13 Methods and Measurement for Translational Practice Inquiry (3 Units) Spring

Instructor(s): Jyu-Lin Chen, Juli Maxworthy

Prerequisite(s): None

Restrictions: Course only open to first year DNP students. Instructor's

approval is required to enroll in this course.

Activities: Lecture, Seminar, Web work

In this second quarter, the DNP students will utilize advanced concepts in research methods and measurement strategies that are applicable to support the advanced practice nurse for translational practice. Students will access, evaluate, and utilize data from various sources including research, quality improvement initiatives, and information technology origins to achieve improvements in care delivery and practice.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 263.14 Improving Health Outcomes Through QI and Patient Safety (3 Units) Winter, Summer

Instructor(s): Marianne Hultgren, Elena Capella

Prerequisite(s): None

Restrictions: Instructor's approval is required to enroll in this course

Activities: Lecture, Seminar, Web work

In this second quarter course, DNP students will evaluate the history and current state of quality and safety issues, research and innovative quality/safety strategies and culturally/linguistically appropriate services. The work of relevant thought leaders will inform discussions of quality and safety practice. Students will analyze quality management models in healthcare, and incorporate the role of the DNP in developing and leading quality initiatives to improve patient outcomes.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 263.15 Advanced Health Policy and Advocacy (3 Units) Winter

Instructor(s): Leslie Dubbin, Juli Maxworthy

Prerequisite(s): None

Restrictions: Open to DNP students only

Activities: Lecture, Seminar, Web work

Doctor of Nursing Practice (DNP) students will explore history, definitions and applications related to health policy and advocacy. Students will discuss the complexities of health policy development, implementation and evaluation, and engage in comparative analysis of US and international health systems. Students will analyze the role of advocacy and develop skills in influencing health policy and health system change.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# NURSING 263.18 Advanced Concepts in Clinical Prevention & Population Health (3 Units) Winter, Summer

Instructor(s): Lisa Lommel
Prerequisite(s): None

Restrictions: Open to DNP students only

Activities: Web work

This course will support Doctor of Nursing Practice (DNP) students in examining the development of health goals and measurement/ assessment of outcomes for international, national and state health goals. The course will address health promotion and illness prevention for healthy/chronically ill populations. Emphasis is placed on the impact of social determinants of health and health inequities in vulnerable populations. Students will examine biostatistical principles used to measure outcomes.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 263.19 Informatics for the nurse leader (2 Units) Winter

Instructor(s): Staff
Prerequisite(s): No

Restrictions: Open to DNP students or with consent of instructor

Activities: Lecture, Seminar, Web work

Course provides an overview of informatics to support understanding of how data is organized and analyzed to inform healthcare delivery, quality and safe use. Topics include the history/evolution of informatics in healthcare; collection and distribution of data; and safety, innovation and nursing outcomes supported by informatics. Participants gain exposure in leading and managing informatics initiatives, and integrating informatics across practice, research, communication and education domains.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 263.2 DNP Epilogue (1 Units) Spring

Instructor(s): Lisa Lommel
Prerequisite(s): None

Restrictions: Course only open to DNP students only

Activities: Workshop

This final of three in-person immersion courses provides the opportunity for Doctor of Nursing Practice (DNP) program students to continue development of leadership and scholarly expertise. Students will have opportunities during in-person activities to showcase their scholarly work, including their DNP Project before colleagues and stakeholders. The course will include in-person activities and presentations including but not limited to leadership skills and ongoing professional development.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 263.21 Strategic Leadership for the DNP (2 Units) Spring

Instructor(s): KT Waxman, Elena Capella

Prerequisite(s): None

Restrictions: Open to DNP students or with instructor permission

Activities: Web work, Discussion

The purpose of this course is to provide the student with advanced systems knowledge and skills to achieve significant strategic change in healthcare organizations. Leadership and innovation skills are applied to healthcare projects. The focus is on the development, implementation, and evaluation of new ventures to improve healthcare. Strategies for dealing effectively with complexity, uncertainty and risk are explored.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 263.22 Essentials of Simulation-based Learning for the Nurse Leader (2 Units) Spring

Instructor(s): Juli Maxworthy Prerequisite(s): None

Restrictions: None

Activities: Web work, Discussion

This course will provide the learner with the foundational knowledge for using healthcare simulation as a teaching methodology for professional healthcare education. Evidence-based simulation standards, diversity and inclusion, legal and ethical concepts, and theoretical frameworks will be discussed and analyzed.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 263.23 Healthcare Finance for DNP Leaders (2 Units) Spring

Instructor(s): KT Waxman, Arthur Dominguez Jr

Prerequisite(s): None

Restrictions: Open to current Post-Masters students in good academic

standing, and by instructor approval.

Activities: Seminar, Web work

Students will explore healthcare organizations, delivery systems, and financial decision-making at multiple levels. Theoretical and practical principles applied by healthcare organizations for fiscal management and decision-making will be analyzed. The impact and value of nursing will be discussed through a financial lens that integrates concepts such as revenue streams, expenses, and operating budgets.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 263.24 Organizational Systems and Economics for DNPs (2 Units) Spring

Instructor(s): Marianne Hultgren

Prerequisite(s): None

Restrictions: Must be admitted to Post Masters DNP program or by

instructor approval

Activities: Seminar, Web work

This course examines organizational systems and complex healthcare design, theory, delivery, and economics. Emphasis is on systems thinking, organizational behavior in practice, and system-level issues. Students explore healthcare organizations and introductory economics, including organizational ethics, disaster planning, and the role of the DNP nurse in the organization.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 263A DNP Project I: Project Conceptualization and Planning (2 Units) Summer

Instructor(s): Elena Capella, Juli Maxworthy

Prerequisite(s): None

Restrictions: Open to DNP students only

Activities: Web work

This is the first of four Doctor of Nursing Practice (DNP) Project courses that will occur sequentially and be held in parallel to development of the DNP Project. The purpose of the DNP Project courses is to provide structured support for the student's scholarly DNP Project, and to support their development as current and future scholars. DNP Project I will assist students in conceptualizing an evidence-based project proposal and plan that addresses a practice or microsystem issue.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 263B DNP Project II: Project Planning and Implementation (2 Units) Fall

*Instructor(s):* Marianne Hultgren, Elena Capella Prerequisite(s): Completion of N263A

Restrictions: Open to DNP students or consent of instructor

Activities: Web work

This is the second of four DNP Project courses that will occur sequentially and support development of the scholarly DNP Project. The course will provide structured content and support applicable to the project, and assist Doctor of Nursing Practice (DNP) students in implementing a proposal that reflects synthesis of knowledge from prior coursework and application to an area of interest under the direction of a faculty mentor.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 263C DNP Project III: Project Implementation and Evaluation (2 Units) Winter

Instructor(s): Teri Lindgren, Elena Capella

Prerequisite(s): Successful completion of N263A and N263B

Restrictions: Course open to DNP students or with consent of instructor.

Activities: Web work, Discussion

This is the last of the DNP Project courses that will occur sequentially and support development, implementation, and evaluation of the scholarly DNP Project. The course will provide structured content and support applicable to the DNP Project and assist Doctor of Nursing Practice (DNP) students in implementing, evaluating and planning for final dissemination of the DNP project that reflects advanced nursing practice competencies.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 265 Cancer Prevention and Early Detection (1 Units) Spring

Instructor(s): Sueann Mark Prerequisite(s): None

Restrictions: None
Activities: Web work

Course examines current clinical guidelines for cancer prevention and early detection with attention to the needs of diverse populations.

Breast, gynecological, prostate, and colon cancer prevention and early detection are the main illnesses addressed. Both community and national perspectives on cancer prevention and detection programs are explored. Structural and social determinants of health that influence cancer prevention and detection are addressed.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 267A Neonatal Seminar I (1 Units) Fall

Instructor(s): Amy Renfro
Prerequisite(s): None

Restrictions: open for neonatal NNP/CNS specialty

Activities: Seminar, Web work

This seminar will prepare the advanced practice neonatal nurse for planning care for neonatal patients across care settings. Integration of theoretical concepts with neonatal assessment principles will be supported through interactive exercises that develop foundational assessment, management and communication skills.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 269 Integration of Scientific Literature (3 Units) Winter

Instructor(s): Yoshimi Fukuoka Prerequisite(s): NURSING 269

Restrictions: None
Activities: Lecture

Students will analyze the theoretical foundations and research issues underlying specific content areas in nursing science. Integrate in-depth knowledge of theory and research related to a substantive field of study through critical analysis, integration, and synthesis of literature. \r\nAt the completion of the course, the student will be able to (1)describe the process of integrative literature review; (2) identify and critically review research; and (3) define areas for knowledge development.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### NURSING 269.02 Adv. Nursing Seminar: HIV Prevention and Treatment Research (2 Units) Winter

Instructor(s): Glenn-Milo Santos

Prerequisite(s): None

Restrictions: NINR-funded T32 predoctoral students in HIV research or

faculty approval

Activities: Lecture, Seminar, Independent Study, Web work

This course is part of the NINR-funded T32 Program in the School of Nursing to train the next generation of nurse scientists in HIV research. Students review and critically analyze biomedical and behavioral approaches to HIV prevention and treatment. Trainees prepare an academic paper related to their focus in HIV prevention or treatment, thus initiating their written critical analysis of research in their focus area.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 269.03 Advanced Nursing Seminar: HIV Implementation Research (2 Units) Spring

Instructor(s): Carol Dawson-Rose

Prerequisite(s): None

Restrictions: NINR-funded T32 predoctoral student in HIV research or

faculty approval.

Activities: Lecture, Seminar, Independent Study, Web work

This course is part of the NINR-funded T32 Program in the School of Nursing to train the next generation of nurse scientists in HIV research. Students review and critically analyze HIV prevention and treatment implementation science research. Trainees prepare an academic product related to their focus in HIV prevention or treatment, thus demonstrating their written critical analysis of research in their focus area.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 270 Advanced Health Assessment (2 Units) Fall

Instructor(s): Andrea Kuster, Helen Horvath

Prerequisite(s): None

Restrictions: None

Activities: Web work

Course introduces assessment concepts and skills to determine the health status of clients across the life span. Focuses on the collection and interpretation of clinical data derived from the history and physical exam.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course**: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 270.07 Neonatal/Infant Assessment and Neonatal Health Promotions (3 Units) Fall

Instructor(s): Amy Renfro, Chrissy Smith

Prerequisite(s): None

Restrictions: Consent of instructor

Activities: Web work

Course addresses concepts in advanced assessment utilized to determine the health status of neonates and infants. Discussion focuses on the collection and interpretation of clinical data derived from the history and physical exam and diagnostic interventions. Discussion will also focus on neonatal health promotion and prevention.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 271.06 Management of Clinical Occupational Health Problems (2 Units) Spring, Summer

*Instructor(s):* Sandra Domeracki, Paul Blanc Prerequisite(s): Consent of instructor.

Restrictions: None.

Activities: Lecture

Course uses nursing, medical, industrial hygiene and population health/epidemiologic principles to explore evaluation and clinical management of acute and chronic occupational and environmental health problems. Emphasis is on clinical decision making, review of work process/toxicology and exposure limits, and prevention strategies at the individual and organizational levels. Course also addresses psychosocial factors and ethical and legal considerations.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 273A Occupational Health and Diverse Worker Populations (2 Units) Fall

Instructor(s): Soo-Jeong Lee
Prerequisite(s): N/A

Restrictions: None
Activities: Lecture

This course provides an overview of occupational health, using a regulatory, ethical and professional nursing practice framework to explore the diversity of worker populations. This course will emphasize understanding of the social and legal systems for occupational health; the social, cultural, and economic factors influencing vulnerable workers or worker groups; and the role of the occupational and environmental health nurse (OEHN) in implementing socio-culturally sensitive OEH services.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 273B Issues in Occupational Health (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Oi Saeng Hong
Prerequisite(s): none

Restrictions: None
Activities: Seminar

Course will provide a discussion forum of current events, including research, regulation, and health policy impacting occupational and environment health. In addition, students will attend Grand Rounds offered by the Division of Occupational & Environmental Medicine. They will learn about current scientific research and health care delivery systems in occupational health and summarize key elements presented. This course is a longitudinal, 3-term (FA-WI-SP) 0.5 unit course.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 274A Health and Safety Hazards of the Workplace (3 Units) Spring

*Instructor(s):* Oi Saeng Hong, Nicole Collman Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Fieldwork

A prevention-focused course emphasizing the identification of chemical, biologic, physical, ergonomic, psychological and safety hazards of work; identification of environmental monitoring methods, selection of health surveillance and safety measures; and discussion of methods to control exposures and injuries. Students will make visits to work sites to assess occupational hazards and make recommendations for controlling them, using hierarchy of controls.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 274C Occupational Safety (1-3 Units) Fall, Summer

Instructor(s): Carisa Harris

Prerequisite(s): Consent of instructor.

Restrictions: None.

Activities: Web work, Workshop

A prevention focused course for nurses, medical residents, ergonomists, safety engineers, and industrial hygienists emphasizing the identification of safety hazards of work; the components of an injury and illness prevention program; the principles of safety hazards controls; the principles of accident investigation; the essentials of safety inspections and audits; and job analysis and prevention methods.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 274D Farmworker Primary Health Care (2 Units) Spring

*Instructor(s):* Kristen Peek, Elizabeth Castillo Prerequisite(s): N270.

Restrictions: master nursing students

Activities: Lecture, Project

Course is an introduction to the diverse Western farmworker population, and includes common health problems and the influence of socio-cultural factors and public policy on health systems.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 276 Research Residency (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Completion of first year of doctoral study and consent of adviser.

Restrictions: None.
Activities: Project

This course provides a mentored research experience prior to the qualifying exam. It is designed to prepare the student for the qualifying examination, lay the foundation for the preparation and defense of a dissertation proposal and for subsequent independent research. Students develop research skills under the supervision of a faculty member, who serves as FOR. Specific activities and objectives that will best meet the student's learning needs are negotiated by the student and FOR.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### NURSING 280 Closing the Opioid Treatment Gap via Nurse Activation (1 Units) Spring

*Instructor(s)*: Matt Tierney, Elizabeth Castillo, Adam Leonard Prerequisite(s): Completion of advanced pharmacology coursework (N232.01, N232.02 or similar course).

Restrictions: Not recommended for 1st year MS students

Activities: Lecture, Fieldwork, Web work

Course develops knowledge and clinical reasoning skills to provide patient-centered, evidence-based treatments for opioid use disorder (OUD), including field work where students observe medication treatment for OUD. Course focuses on the equitable expansion of OUD treatment by addressing stigma and structural barriers to treating marginalized populations, including people of color, rural communities, and adolescents/transition-age-youth.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 281A Antepartum Management (2 Units) Fall

Instructor(s): Vanessa Evers

Prerequisite(s): enrollment in nurse-midwifery program

Restrictions: none

Activities: Seminar

Course reviews and analyzes the etiology and management of selected conditions in normal pregnancy. The impact of pregnancy on the pregnant individual and family will be emphasized.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 281B Management of Intrapartum Care (3 Units) Spring**

Instructor(s): Amber Bell

Prerequisite(s): N208, N281A or COI

Restrictions: Students enrolled with the UCSF Nurse-Midwifery/Women's

Health Nurse-Practitioner Program

Activities: Lecture

Course reviews and analyzes the etiology and management of selected conditions during the intrapartum, postpartum and newborn periods.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 281D Midwifery Care of the Postpartum Dyad (1 Units) Summer**

Instructor(s): Amber Bell

Prerequisite(s): Completion of N281A/B, N282A, or consent of instructor

Restrictions: Enrollment restricted to students in Nurse-Midwifery

specialty.

Activities: Lecture

Course reviews midwifery role in promoting physical, psychological, emotional and social coping and healing following pregnancy, including management of postpartum and newborn conditions. Support of infant feeding methods is reviewed. Normal transition from intrauterine environment is examined and potential complications in the newborn period are identified. Students will learn how to support healthy parent/ infant dyad.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

enroll in this course? No Repeat course for credit? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 281E Complex Cases: Advanced Nurse-**Midwifery Management (1.5 Units) Winter

Instructor(s): Deena Mallareddy

Prerequisite(s): N281A/B, N282A/B, or COI

Restrictions: None

Activities: Lecture

The course explores advanced topics in nurse-midwifery care including, management of chronic illness, trauma, triage and obstetric complications during pregnancy and childbirth. The class builds on prior courses. Nurse-midwifery assessment and management will be fostered using interactive lectures and case studies.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No.

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 281F Midwifery Cumulative Content** Review (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Kim Dau

Prerequisite(s): NURSING 259.01, NURSING 259.02, NURSING 259.04A, NURSING 281A, NURSING 281B, NURSING 281D, , NURSING 281E, NURSING 282A, NURSING 282B, NURSING 414.15A, NURSING 414.15B, NURSING 414.15D, NURSING 414.15F

Restrictions: Enrolled in Nurse-Midwifery specialty

Activities: Discussion

This course reviews and examines students knowledge and understanding of cumulative core nurse-midwifery concepts and clinical management.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 282A Management of Antepartum Complications (2 Units) Winter

Instructor(s): Vanessa Evers

Prerequisite(s): N208, N281A past or concurrent or COI

Restrictions: Enrollment in Nurse-Midwifery specialty.

Activities: Lecture

Course reviews and analyzes selected complications of pregnancy in the antepartal period. The impact of the complications on the mother, baby and family will be emphasized.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 282B Management of Intrapartum Complications (3 Units) Summer

Instructor(s): Amber Bell, Cynthia Belew

Prerequisite(s): N208, N281B past or concurrent or COI

Restrictions: None

Activities: Lecture

This course includes the physiology, pathophysiology, assessment and management of selected complications in the intrapartum and postpartum period, with a focus on nurse-midwifery management using a model of family-centered care with shared clinical decision-making.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 283.20 Advanced Acute Care Pediatric Nursing I (3 Units) Spring

Instructor(s): Sandra Staveski

Prerequisite(s): Enrolled in the Acute Care Pediatric Nurse Practitioner specialty program or instructor approval.

Restrictions: Enrollment as an Acute Care Pediatric Nurse Practitioner specialty student, or as a Acute Care Pediatric Nurse Practitioner specialty post-graduate student, or instructor approval.

Activities: Lecture, Seminar, Web work

This course focuses on the pathophysiology, symptomology, diagnostic and therapeutic evaluation, and management in acute care pediatric nurse practitioner practice for infants, children, and adolescents with complex acute, critical, and chronic health conditions. It highlights pediatric pulmonary, cardiovascular, neurologic, metabolic, and genetics-linked conditions with an emphasis on applying evidence-based practice to guide culturally sensitive and ethical care.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 283.21 Advanced Acute Care Pediatric Nursing and Pharmacology II (4 Units) Winter

Instructor(s): Brittany Christiansen

Prerequisite(s): Completion of the following year 1 Acute Care Pediatric Nurse Practitioner specialty program coursework: NURSING N270, NURSING N208, SKILLS LAB 413.11, NURSING 283A, and year 2 ACPNP coursework: NURSING 283.20.

Restrictions: Enrollment as an Acute Care Pediatric Nurse Practitioner specialty student, or as an Acute Care Pediatric Nurse Practitioner specialty post-graduate student, or instructor approval.

Activities: Lecture, Seminar, Web work

This course focuses on pathophysiology, pharmacology, diagnostics, and advanced nursing practice in the management of infants, children, and adolescents with acute, critical, and chronic health conditions. It highlights pediatric dermatologic, toxicologic, otolaryngologic, immunologic, genetic, hematologic, oncologic, and infectious conditions, including palliative and end of life care, with an emphasis on applying evidence-based practice to guide assessment, diagnosis, and management decisions.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 283.22 Advanced Acute Care Pediatric Nursing and Pharmacology III (4 Units) Spring

Instructor(s): Brittany Christiansen

Prerequisite(s): Completion of the following year 1 Acute Care Pediatric Nurse Practitioner specialty program coursework: NURSING N270, NURSING N208, SKILLS LAB 413.11, NURSING 283A, and year 2 ACPNP coursework: NURSING 283.20, NURSING 283.21.

Restrictions: Enrollment as an Acute Care Pediatric Nurse Practitioner specialty student, or as an Acute Care Pediatric Nurse Practitioner specialty post-graduate student, or instructor approval.

Activities: Lecture, Seminar, Web work

This course focuses on pathophysiology, pharmacology, diagnostics, and advanced nursing practice in the management of infants, children, and adolescents with complex acute, critical, and chronic health conditions. It highlights pediatric metabolic, endocrinologic, gastrointestinal, genitourinary, renal, musculoskeletal, and trauma-related conditions with an emphasis on applying evidence-based practice to guide assessment, diagnosis, and management decisions.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 283A Pediatric Physiologic Development (2 Units) Fall

Instructor(s): Mary Lynch
Prerequisite(s): None

Restrictions: None

Activities: Lecture, Web work

Course addresses organ system function as impacted by developmental needs and system immaturity in the infant, child, and adolescent. Implications for advanced practice pediatric nursing interventions will be addressed in relation to health promotion and illness prevention.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 284A Introduction to Chest X-Ray Interpretation (2 Units) Spring, Summer

*Instructor(s):* Dawn Troeger, Chi Vang Prerequisite(s): None.

Restrictions: Must be in either first or second year of an advanced practice program. May not take the course if in the first MEPN year.

Activities: Web work

This course is designed to give the nurse practitioner or clinical nurse specialist student a basic introduction to the principles of chest x-ray interpretation. This course utilizes a self-paced, programmed learning modality. Students review patient cases and x-ray images that are located in a computerized learning environment.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 285A Qualitative Methods I (5 Units) Fall

*Instructor(s):* Stacy Torres, Heather Leutwyler Prerequisite(s): None.

Restrictions: Second-year doctoral student.

Activities: Seminar, Fieldwork, Discussion

Course reviews many of the types of qualitative research methods, emphasizing assumptions and approaches. Course focuses on design, entree, ethics, data-gathering techniques (interviewing, observing), and data recording and management. Data analysis is introduced. This is a 2-part course, concluding with 285B. Cross-listed with SOCIOLOGY 285A

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 285B Qualitative Methods II (5 Units) Winter

Instructor(s): Heather Leutwyler, Stacy Torres Prerequisite(s): N285A

Restrictions: Second-year doctoral student.

Activities: Seminar, Fieldwork, Discussion

Course compares and contrasts modes of qualitative analysis. Examines issues in establishing plausibility, credibility, adequacy. Intensive data analysis and examination of the problems of presentation of findings with focus on questions of authority and preparation of text. 2-part course, beginning with NURSING 285A. Cross-listed with SOCIOLOGY 285B

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 285D Fieldwork and Ethnographic Methods (2 Units) Spring

Instructor(s): Ifeyinwa Asiodu

Prerequisite(s): Students should have taken and passed N/S 285A and B. If students have not taken these courses enrollment may be approved by the instructor if students can demonstrate that they possess equivalent skills in data collection and analysis.

Restrictions: PhD level students. Non-nursing, post-doctoral, or special studies students may enroll with permission of instructor. Students must have an IRB approved research project that is suitable for the fieldwork experiences incorporated in this class.

Activities: Lecture, Fieldwork

This PhD level course will provide in-depth information and mentored experiences with Fieldwork and ethnographic methods. This course is suitable for students using Ethnography or other qualitative methods incorporating observation, interviews, and review of documents. Students will spend 10 hours collecting interview or observational data in a self-selected fieldwork site, write detailed field notes, and prepare a final oral project describing their findings and future related research.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### NURSING 286A Community-Based Participatory Research Methods (2 Units) Spring

Instructor(s): Catherine Waters
Prerequisite(s): None

Restrictions: None Activities: Seminar

This problem-solving course focuses on the application of community-based participatory research (CBPR) principles and methods with diverse populations. An overview of CBPR and its epistemological and ontological underpinnings and relevance to nursing and public health are presented. The course also addresses ethical, validity and rigor issues in CBPR.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### **NURSING 287S Street Nursing (2.5 Units) Spring**

*Instructor(s):* Heather Leutwyler, Shannon Smith-Bernardin Prerequisite(s): None

Restrictions: Enrollment in the School of Nursing.

Activities: Lecture, Clinical, Workshop

The course will provide a theoretical and conceptual foundation for providing care outside of traditional health care settings for persons experiencing homelessness or marginal housing. Students will explore the sociocultural, environmental, health systems, and political factors that can impact the health and illness of people experiencing homelessness. Students will analyze current evidence and best practices that form the basis for advanced nursing health care interventions for this population

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 288D Clinical Nurse Specialist Seminar (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Astrid Block
Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

The purpose of this seminar is to give the graduate nursing student an introduction to the various advanced practice roles and activities, especially for the clinical nurse specialist. An overview of the professional, legal, political and economic influences on education, practice and outcomes will be covered.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 288F Management of Acute and Chronic Illness (2 Units) Winter

Instructor(s): Denise Li
Prerequisite(s): None

Restrictions: Department of Physiological Nursing students only

Activities: Lecture

This course is first in a series of four disease management courses that focus on the diagnosis and treatment of acute and chronic illnesses affecting adult and older adult patients. Learners synthesize pathophysiologic concepts using evidence-based resources to analyze clinical data and formulate differential diagnoses, select diagnostics, and develop management strategies. The course objectives are met through prerecorded lectures, synchronous didactic content, and case study analyses.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 289.01 Advanced Methods: Meta-Analysis (2 Units) Winter

Instructor(s): Glenn-Milo Santos

Prerequisite(s): This is an advanced nursing seminar. Completion of the first year of the nursing doctoral program is required.

Restrictions: Knowledge of STATA software

Activities: Lecture

Course will familiarize students with meta-analysis techniques for conducting integrative research review on a phenomenon of interst. Content includes an overview of meta-analysis techniques, issues and controversies, steps in conducting a meta-analysis, including effect sizes and inter-reliability.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 289.01A Approaches to Statistical Analyses (2 Units) Winter

Instructor(s): Abbey Alkon
Prerequisite(s): None

Restrictions: Statistics course within last 2 years.

Activities: Lecture, Lab skills

This lab is designed to support N289A Advanced Quantitative Research Methods. Students will learn how to plan and conduct analyses. They will answer research questions using different statistical methods, interpret findings and write the results and conclusion sections of an article. Students will use a statistical package to complete assignments.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### NURSING 289A Advanced Quantitative Research Methods I (3 Units) Fall, Winter

Instructor(s): Cherry Leung Prerequisite(s): N209B

Restrictions: Doctoral student or consent of instructor.

Activities: Lecture

This advanced quantitative nursing research course focuses on how research questions lead to different study designs, data collection procedures and analyses. The coursework provides content on analytic techniques, such as multiple logistic regression, power estimation, and effect sizes with hands-on experience provided through exercises in planning, conducting, and interpreting analyses.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 290 Family Theory in Health Care Research (3 Units) Fall

Instructor(s): Mijung Park Prerequisite(s): None.

Restrictions: Doctoral student or consent of instructor.

Activities: Lecture, Seminar, Project, Web work, Discussion

Course presents and critiques theoretical perspectives and research approaches dominant in the study of family and health. Compatibility of theories and research approaches is examined.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 292B Perinatal Risk on Fetal and Neonatal Health (1 Units) Fall

Instructor(s): Amy Renfro
Prerequisite(s): None

Restrictions: Open for neonatal specialty; others with permission of

instructor

Activities: Web work

This web-based course will explore perinatal issues that may impact the health of the pregnant patient, fetus and neonate. In addition to supporting knowledge gain related to routine perinatal care, the impact of select acute and chronic perinatal conditions and evidence-based therapeutic interventions used with the pregnant patient and fetus will be explored.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 294A Introduction to Human Genomics (2 Units) Fall

Instructor(s): Kord Kober, Elena Flowers

Prerequisite(s): None.

Restrictions: None.

Activities: Seminar

Course focuses on the history of genetics, basic human and molecular genetics, an introduction to genetic variation (SNPs, etc.), patterns of inheritance, multifactorial inheritance and common diseases, influences of gene action and expression, clinical cytogenics, the Human Genome Project, genetics terminology, and molecular biology laboratory methods.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 294B Implications of Genomics for Nursing Practice (2 Units) Winter

*Instructor(s):* Elena Flowers, Kord Kober Prerequisite(s): N294A or consent of instructor.

Restrictions: None.

Activities: Seminar, Web work

This course addresses issues in genomics relevant for Advanced Practice Nurses. Students will learn about the essential genomic competencies for nurses, how to obtain a 3-generation family history, policy, legal, and public health issues in genomics, issues of diversity related to genomics, and consumer genomics.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 294C Clinical Genomics (2 Units) Spring**

Instructor(s): Elena Flowers, Kord Kober

Prerequisite(s): None. Although this course is the 3rd in a series with all three being required to complete the genomics minor, N294C may also be taken as a stand alone course for students who have interest in the topic. Because it is an overview of clinical applications of genomics, the content should be understandable and relevant even without having taken N294A/B

Restrictions: None

Activities: Lecture, Web work

This course provides an overview of current clinical applications of genomics that are relevant to Advanced Practice Nurses. Students will gain knowledge about how genomic technologies are currently incorporated into clinical practice across the lifespan, including prenatal/newborn, pediatric, complex adult conditions (e.g., cancer, neurologic disease) as well as issues that cross the lifespan (i.e., microbiome and infectious disease)

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 294D Essentials of Human Genomics for Nurses (1 Units) Winter, Summer

Instructor(s): Elena Flowers, Kord Kober

Prerequisite(s): None

Restrictions: None
Activities: Web work

Course will focus on clinical practice, scientific, technologic, social, policy, and regulatory aspects of genomics in clinical practice. The course will provide an introductory survey of these topics aligned with the Essential Competencies in Genomics for Advanced Practice Nurses.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 295 Nursing MS Related Studies (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Approval by the School of Nursing Dean's Office.

Utility course to satisfy registration requirements; for departmental use only.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 295B Acute and Chronic Care Considerations for Older Adults (1.5 Units) Winter

Instructor(s): Colette Jappy, Astrid Block, Doanh Ly

Prerequisite(s): None Restrictions: None.

Activities: Seminar

Course content will focus on recognition and management of common health problems in older adults with multimorbidity, with a particular concentration on cardiovascular problems presenting across care settings. Use of appropriate screening and risk assessment tools coupled with application of evidence-based approaches to managing multimorbidity in the older adult will be emphasized.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 295D Adult-Gero Mental Health Seminar I (1 Units) Spring

Instructor(s): Colette Jappy, Astrid Block, Doanh Ly

Prerequisite(s): None

Restrictions: None

Activities: Seminar

Course will provide foundational knowledge across a broad range of cognitive disorders and associated symptoms commonly encountered in adult and older adult populations. Course content and activities will emphasize assessment, differential diagnosis and both pharmacological and non pharmacological management strategies. Case studies will provide the learner with the opportunity to apply newly acquired knowledge.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 296 Introduction to AI in Health Care and** Research (1 Units) Fall

Instructor(s): Yoshimi Fukuoka, Kord Kober

Prerequisite(s): None

Restrictions: Nursing PhD and DNP students only.

Activities: Lecture

This course provides an overview of artificial intelligence approaches, their use in healthcare and research settings, and discusses ethical considerations.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 296A Advanced Clinical Management of** Pediatric Diabetes (1-2 Units) Fall

Instructor(s): Celina Trujillo, Carolina Noya, Maureen Mcgrath Prerequisite(s): NURSING 270\r\nNURSING 208

Restrictions: none

Activities: Lecture

Course focuses on diabetes (type 1 and type 2) in a pediatric population. Course will include: epidemiology and detection of diabetes in children and adolescents; pathophysiology; disease management requirements; pharmacological treatment; transition issues; diabetes education and self-care management expectations for pediatric patients and their families. Each topic area will emphasize a collaborative team approach to care and invited speakers will be from the team's represented disciplines.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 296B Behavioral Approaches for Diabetes** Across the Lifespan (1 Units) Spring

Instructor(s): Carolina Noya

Prerequisite(s): Must be concurrently enrolled in Nursing Skills Lab 413.50

Restrictions: Limited to 20 students.

Activities: Lecture

Course focuses on the complex behavioral, educational, and family skills required to support patients in living with diabetes. Topics include: behavioral theories for managing diabetes, family theories for influencing health outcomes; empirically based intervention strategies for behavior change. The related lab focuses on student skill development in varied forms of behavioral and family intervention.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **NURSING 296C Advanced Clinical Management of Adult Diabetes (2 Units) Winter**

Instructor(s): Carolina Noya

Prerequisite(s): Instructor approval required, as well as prior completion

of NURSING 208 and NURSING 270.

Restrictions: None

Activities: Lecture, Seminar, Web work, Workshop

Primary focus is on diabetes (type 1 and type 2) in an adult population. Course will include epidemiology and detection of diabetes in adults; pathophysiology; disease management requirements; pharmacological treatment; care of special populations (e.g. patients with diabetes who are pregnant, elderly, have mental illness, are underserved) as well as issues related to employment. Each topic area will emphasize the importance of a collaborative team approach to care.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 298A Qualifying Examination Seminar (2** Units) Winter, Spring

Instructor(s): Michele Pelter, Linda Franck

Prerequisite(s): NURSING 202A, NURSING 209A, NURSING 209B, NURSING 212A, NURSING 212B, NURSING 269, NURSING 229,

NURSING 212, NURSING 289A, NURSING 289,01A

Restrictions: PhD nursing students only Activities: Seminar, Independent Study

This course provides an overview of the qualifying examination and principles of a successful qualifying examination for doctoral students. It addresses issues integral to the completion of doctoral study and focuses on skills helpful in completing a successful Qualifying Exam.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 299 Dissertation (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Advancement to candidacy and permission of the graduate adviser.

Restrictions: Must be a PhD candidate.

Activities: Project

This course is for graduate students engaged in dissertation activities and writing for the Doctor of Philosophy (PhD) in Nursing degree.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 336 Teaching Practicum (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study

Course provides supervised practice in selected components of the

teaching role in nursing.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 363 Foundations of Academic and Clinical Teaching in Nursing (2 Units) Spring, Summer

Instructor(s): Annette Carley Prerequisite(s): No

Restrictions: Open only to DNP students or with instructor approval

Activities: Web work

This course evaluates research, theory, and other evidentiary support for instructional strategies and curricular design. Best practices in learner-centered teaching, curriculum models, and instructional design will be explored. Students will examine and develop innovative and emerging instructional strategies that support motivation, performance, and learning. The course is designed for current or prospective nurse educators seeking foundational knowledge.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

## NURSING 363.1 Teaching in the Online Environment (2 Units) Spring, Summer

Instructor(s): Marianne Hultgren

Prerequisite(s): No

Restrictions: Open only to DNP students or with instructor approval

Activities: Web work

This course will provide an opportunity for the student to evaluate research, theory, and other evidence that support online learning and learner-centered course design. Students will examine best practices in online instruction and develop strategies that apply innovative and emerging technologies to enhance motivation, performance and learning for health professionals. The course is designed for current or prospective nurse educators seeking foundational knowledge.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

## NURSING 367 Teaching Residency (1-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Admission to doctoral study or consent of advisor.

Restrictions: None

Activities: Independent Study

Course provides an opportunity for students to gain hands-on skills in pedagogical aspects of the faculty role. Supervised by an experienced faculty member, students will collaborate in development and/or implementation of classroom or clinical education. Students will perform selected teaching activities that include, but are not limited to, developing lectures, preparing class materials, leading class discussions, evaluating student performance and analyzing the course learning environment.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

### NURSING 414.02A Occupational and Environmental Health Nursing Practicum (1 Units) Winter

Instructor(s): Soo-Jeong Lee, Oi Saeng Hong

Prerequisite(s): None

Restrictions: Enrollment in the OEHN Program Specialty

Activities: Clinical

This course provides the learner with experience with the management and consultation role functions of an onsite Occupational and Environmental Health Nurse (OEHN) service, including worker's compensation program management, budgeting, regulatory compliance and case management. Learners will conduct an organizational analysis to describe an organization's purpose, mission and organizational structure and identify a problem or process that will be the focus of a proposed intervention.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 414.02B Occupational/Environmental Health Program Planning Residency (2 Units) Spring

Instructor(s): Soo-Jeong Lee, Erin Davis Prerequisite(s): Nursing 414.02A

Restrictions: None

Activities: Clinical, Fieldwork

This course addresses occupational and environmental health (OEH) program development. Participants will be placed at an organization to develop, implement, and evaluate an OEH program tailored to the needs and culture of the organization and its employees, and within the legal, ethical and professional practice framework of OEH nursing. When applicable, the program will be developed using the PICO/PDSA process. Programs will be based on practice, business, or regulatory requirements.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 414.04 Psychiatric-Mental Health Nursing Clinical Practicum (1-3.5 Units) Fall, Winter, Spring

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: Psychiatric Mental Health nursing students.

Activities: Clinical

Course offers a supervised experience in which students learn skills of assessment, interventions and/or management in Psychiatric Mental Health nursing.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 414.10 Family Nurse Practitioner Clinical Practicum (0.5-5.5 Units) Winter, Spring, Summer

Instructor(s): Carrie Evans, Mary Massella

Prerequisite(s): Successful completion of N270 and Nursing Skills Lab 413.10

Restrictions: Family Nurse Practitioner students or by consent of instructor.

Activities: Clinical

Supervised experience in which students learn skills of assessment, interventions and/or management applicable to family nurse practitioner.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### NURSING 414.15A Ambulatory Sexual and Reproductive Health Clinical Practicum (4.5 Units) Winter, Spring, Summer

Instructor(s): Vanessa Evers

 $Prerequisite (s): N270 \ and \ Nursing \ Skills \ Lab \ 413.10; \ N259.01/N259.02;$ 

N281A/N282A past or concurrent; or consent of instructor

Restrictions: Restricted to midwifery and women's health students or

consent of instructor.

Activities: Clinical

Supervised experience in which students learn skills of assessment, interventions, and/or management applicable to midwifery and reproductive health clinical practice.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 414.15B Intrapartum Clinical Practicum (8 Units) Fall, Summer

Instructor(s): Vanessa Evers

Prerequisite(s): N270 OR Nursing Skills Lab 413.15; N281B/N282B past or concurrent; or consent of instructor

or concurrent, or consent or instructor

Restrictions: Restricted to Nurse-Midwifery & Women's Health Nurse Practitioner students, or consent of instructor.

Activities: Clinical

Supervised clinical experience in which the student integrates scientific knowledge and clinical practice to develop intrapartum, postpartum and newborn management skills.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## NURSING 414.15D Advanced Ambulatory Sexual & Reproductive Health Practicum (4.5 Units) Fall, Winter

Instructor(s): Cynthia Belew

Prerequisite(s): N270; NSL413.15A, N414.15A, N281A, N281B, N259.01,

N259.02, N259.04 past or concurrent; or COI.

Restrictions: Restricted to students in the Nurse-Midwifery and Women's

Health Nurse Practitioner program

Activities: Clinical

Supervised experience in which students learn skills of assessment, interventions, and/or management applicable to midwifery and women's health NP practice.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

### NURSING 414.15F Advanced Intrapartum Clinical Practicum (1-10 Units) Fall, Winter, Spring, Summer

Instructor(s): Kim Dau

Prerequisite(s): Successful completion of N414.15B or consent of the

Restrictions: Restricted to nurse-midwifery and women's health NP students

Activities: Clinical

This course provides intrapartum, postpartum and newborn supervised clinical experiences in which students learn skills of assessment, interventions, and management of advanced topics in perinatal health care.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 414.20A Acute Care Nurse Practitioner Clinical Practicum (1 Units) Fall

Instructor(s): Andrea Saito, Chi Vang

Prerequisite(s): None.

Restrictions: Acute Care Nurse Practitioner students only.

Activities: Clinical

Course provides application of health assessment concepts and skills under supervision of clinical preceptors. Performance of systematic health assessment of healthy adults, and/or adults with stable acute or chronic illness. Development of an increasing ability to differentiate between normal and abnormal findings. Beginning development of the role of Acute Care Nurse Practitioner, with emphasis on the collaborative relationship and the continuum of care from primary to tertiary setting.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 414.20B Acute Care Nurse Practitioner Clinical Practicum (2 Units) Winter

Instructor(s): Chi Vang

Prerequisite(s): Completion of N414.20A and Nursing Skills Lab 413..20A

Restrictions: Acute Care Nurse Practitioner students only.

Activities: Clinical

Clinical experiences focus on the advancement of history and physical examination skills while acquiring proficiency in developing health promotion and maintenance plans for stable, hospitalized adults using clinical decision-making models.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 414.20C Acute Care Nurse Practitioner Clinical Practicum (2 Units) Spring

Instructor(s): Andrea Saito

Prerequisite(s): Completion of N414.20B

Restrictions: Adult Gerontology-Acute Care Nurse Practitioner students

only

Activities: Clinical

Clinical experiences focus on the advancement of history and physical examination skills while acquiring proficiency in developing health promotion and maintenance plans for stable, hospitalized adults using clinical decision-making models.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## NURSING 414.20D Acute Care Nurse Practitioner Clinical Practicum (1-4 Units) Winter

Instructor(s): Dawn Troeger
Prerequisite(s): None

Restrictions: Must be enrolled in the AG ACNP MS program or Post

Masters certificate program.

Activities: Clinical

Clinical experiences focus on the episodic and/or chronic health needs of hospitalized adults and will emphasize diagnosis and management of chronic illness.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### NURSING 414.23 Adult-Gerontology Nursing Practicum-Oncology (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Sueann Mark
Prerequisite(s): None

Restrictions: None

Activities: Clinical

Description: Supervised experience in which students learn skills of assessment, interventions, and/or management.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### NURSING 414.25 Adult-Gerontology Nursing Practicum-Critical Care/Trauma (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Sueann Mark
Prerequisite(s): None.

Restrictions: None

Activities: Clinical

Description: Supervised experience in which students learn skills of assessment, interventions, and/or management.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 414.28 AGPCNP Clinical Practicum (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): none

Restrictions: Adult Gerontology Primary Care Nurse Practitioner program

learners

Activities: Clinical

Supervised experience in which students learn skills of assessment, interventions and/or management in advanced practice adult-gerontology primary care nursing.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 414.29 Adult-Gerontology Nursing Clinical Practicum (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Sueann Mark
Prerequisite(s): No prerequisites

Restrictions: No restrictions

Activities: Clinical

Supervised experience in which students learn skills of assessment, interventions, and/or management.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### NURSING 414.96 Interprofessional Diabetes Camp Practicum (1-2 Units) Spring, Summer

Instructor(s): Carolina Noya Prerequisite(s): none

Restrictions: none

Activities: Clinical

This course will provide learners an opportunity to take an active role in interprofessional team work and team based practice in the setting of Diabetes Youth and Families (DYF) residential summer camp providing care for children with type 1 diabetes. Learners will be assigned to a group of campers and provide diabetes treatment and management support for all meals and activities, as well as ongoing health needs common to residential camps. Learners will stay on-site for the duration of camp.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? Yes

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 415.03 Advanced Practice Public Health Nursing Residency (2-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): N212C; N215; N215.01; N262A/B

Restrictions: None
Activities: Fieldwork

The residency provides students with the opportunity to apply and evaluate theories, concepts, and skills in a community/public health setting under the supervision of a preceptor. Residency focuses on role development as an advanced practice community/public health specialist through engagement in one of three learning projects: 1) conducting a community/public health-focused project; 2) design and complete a policy analysis project; or 3) design and completion of a research project.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 415.04 Clinical Residency in Psychiatric-Mental Health Nursing (1-12.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): N257, N227

Restrictions: Psychiatric Mental Health Nurse Practitioner students.

Activities: Clinical

Course integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and direct care skills in advanced practice psychiatric-mental health nursing. Includes application/integration of research, consultation and clinical leadership as appropriate.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 415.05 Post Master's PMHNP Clinical Residency (1-7 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Enrollment in the multi-campus Post Master PMHNP

Certificate Program

Activities: Clinical

This course includes clinical experience supported by a weekly synchronous clinical conference. The course provides the opportunity for the student to integrate scientific knowledge and clinical practice to develop diagnostic, clinical decision making, and direct care of individuals, groups, and families across the lifespan. Includes application/ integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 415.10A Family Nurse Practitioner Clinical Residency (0.5-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Carrie Evans, Jennifer Huggans-Zapeta, Mary Massella Prerequisite(s): Successful completion of N270 and Nursing Skills Lab 413.10

Restrictions: None.

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and hands-on-clinical skills in family nurse practitioner specialty. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 415.10B Family Nurse Practitioner Pediatric Residency (0.5-5.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Carrie Evans, Abbey Roepke, Mary Massella, Jennifer

Huggans-Zapeta, Michelle Buchholz

Prerequisite(s): N270 and Nursing Skills Lab 413.10

Restrictions: Family Nurse Practitioner students or by consent of

instructor

Activities: Clinical

Supervised experience in which Family Nurse Practitioner students learn skills of assessment, interventions and/or management of pediatric patients as applicable to the role of a family nurse practitioner.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 415.10C Sexual and Reproductive Health Clinical Residency (0.5-5.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Carrie Evans, Abbey Roepke, Mary Massella, Jennifer

Huggans-Zapeta, Michelle Buchholz

Prerequisite(s): N270 and Nursing Skills Lab 413.10

Restrictions: Family Nurse Practitioner students or by consent of the

instructor

Activities: Clinical

Supervised experience in which students learn skills of assessment, interventions and/or management specific to women's health and including, but not limited to obstetrics, gynecological, and family planning as applicable to the role of a family nurse practitioner.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 415.11A Pediatric Nurse Practitioner Clinical Residency (0.5-6 Units) Winter, Spring, Summer

Instructor(s): Mary Anne Israel

Prerequisite(s): Satisfactory completion of NURSING NSL413.11 within the last 5 months or approval of faculty of record.

Restrictions: First year primary care pediatric nurse practitioner students \r\nFirst year acute care pediatric nurse practitioner students\r\nor per instructor approval

Activities: Clinical, Web work

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced assessment and diagnostic, clinical decision making, and hands-on-clinical skills in the pediatric nurse practitioner specialty. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 415.11B Pediatric Nurse Practitioner Clinical Residency (0.5-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Mary Anne Israel Prerequisite(s): N415.11A

Restrictions: none

Activities: Clinical, Web work

In this course, students will have the opportunity to integrate scientific knowledge into clinical practice in order enhance skills in diagnosis, clinical decision making, and clinical skills in the pediatric nurse practitioner specialty. This course includes application and integration of research, consultation, and clinical leadership.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 415.12 Neonatal Nurse Practitioner Clinical Residency (1-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Chrissy Smith

Prerequisite(s): Successful completion of Nursing Skills Lab 413.12 or consent of instructor.

Restrictions: None.

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced assessment and diagnosis, clinical decision making, and hands-on-clinical skills in the neonatal nurse practitioner specialty. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 415.13A Acute Care Pediatric Nurse Practitioner Clinical Residency A (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Brittany Christiansen

Prerequisite(s): NURSING 208, NURSING SKILLS LAB 413.11

Restrictions: Course enrollment restricted to ACPNP specialty students or instruction of the FOR.

Activities: Clinical, Conference

This clinical course provides the opportunity to integrate scientific knowledge and clinical practice to develop emerging advanced assessment, diagnostic, and clinical management skills in pediatric specialty and/or chronic care practice settings, under the supervision of a clinical preceptor. Focus is on detailed data gathering, refinement of physical exam skills, and development of a problem list for infants, children, and adolescents with complex acute, critical, or chronic health conditions.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### NURSING 415.13B Acute Care Pediatric Nurse Practitioner Clinical Residency B (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Brittany Christiansen

Prerequisite(s): Nursing 208, Nursing Skills Lab 413.11, and Nursing

415.13*A* 

Restrictions: Course enrollment is limited to ACPNP specialty students or approval of FOR.

Activities: Clinical, Conference

This course provides the opportunity to integrate scientific knowledge and clinical practice to develop advanced beginner ACPNP practice, including clinical procedures, in pediatric acute and/or critical care practice settings under the supervision of a clinical preceptor. Focus is on detailed assessment, diagnosis, and management of infants, children, and adolescents with complex acute, critical, and chronic health conditions with progression in competency demonstrated over subsequent quarters.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **NURSING 415.15 Nurse-Midwifery and Women's Health** Clinical Residency (2-13.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Kim Dau

Prerequisite(s): N414.15A, B, D, F or COI

Restrictions: Restricted to midwifery and women's health students. Consent of instructor.

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and hands-on-clinical skills in the selected clinical specialty. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### NURSING 415.15A Women's Health Clinical Residency (4.5-6.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Kim Dau

Prerequisite(s): N414.15A, N414.15D

Restrictions: Restricted to WHNP students. Consent of instructor.

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and hands-on-clinical skills in the selected clinical specialty. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 415.17 Neonatal CNS Residency (1-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Chrissy Smith Prerequisite(s): None

Restrictions: Enrolled in neonatal specialty or consent of instructor

Activities: Clinical

This supervised experience will provide the opportunity for students to integrate scientific knowledge and theory into advanced practice, clinical decision making, planning and evaluation appropriate to the CNS role. Clinical experiences will integrate research, consultation, expert practice, education and clinical leadership roles as appropriate to the setting and the neonatal population.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 415.20A Acute Care Nurse Practitioner **Clinical Residency (4-6 Units) Fall**

Instructor(s): Corey Fry

Prerequisite(s): Completion of Nursing Skills Lab 413.20. Satisfactory

completion of N414.20A.

Restrictions: Acute Care Nurse Practitioner students only.

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and hands-on-clinical skills in acute care nurse practitioner practice settings. Includes application and integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 415.20B Acute Care Nurse Practitioner Clinical Residency (4-6 Units) Winter

Instructor(s): Alonya Elgrably

Prerequisite(s): Completion of N415.20A; satisfactory completion of Adult Gerontology Acute Care Nurse Practitioner Clinical Residency; or admission to the AG ACNP Post Masters Program.

Restrictions: Adult Gerontology Acute Care Nurse Practitioner students

Activities: Clinical

Clinical experiences focus on the advancement of history and physical examination skills while acquiring proficiency in developing health promotion and maintenance plans for stable, hospitalized adults using clinical decision-making models.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### NURSING 415.20C Acute Care Nurse Practitioner Clinical Residency (4-7 Units) Spring

Instructor(s): Lisa Guertin

Prerequisite(s): N414.20B or N415.20B

Restrictions: Adult-Gerontology Acute Care Nurse Practitioner students only.

Activities: Clinical

Culminating clinical experience in the role of the ACNP, with emphasis on student's specialty interest such as cardiopulmonary, critical care, or Emergency Department/Trauma. Emphasizes the ACNP as principal provider of care, with a designated team, for a specific patient care environment or a specific population. Focus is on the development of the nurse practitioner in an acute care setting, emphasizing detailed data gathering and refinement of physical examination skills.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### NURSING 415.20D Acute Care Nurse Practitioner Clinical Residency (2-12 Units) Spring, Summer

Instructor(s): Dawn Troeger Prerequisite(s): N415.20C

Restrictions: Acute Care Nurse Practitioner students only.

Activities: Clinical

This course provides clinical experience in the role of A/G Acute Care Nurse Practitioner. The focus is on decision-making regarding diagnosis and treatment of patients with a variety of medical and surgical problems commonly seen in acute care clinical settings.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### NURSING 415.23 Adult-Gerontology Nursing Residency-Oncology (2-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Astrid Block
Prerequisite(s): None

Restrictions: Adult-Gerontology Clinical Nurse Specialist- Oncology

students only.

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and hands-on-clinical skills in the Oncology specialty. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### NURSING 415.25 Adult-Gerontology Nursing Residency- Critical Care/Trauma (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Astrid Block, Colette Jappy

Prerequisite(s): None.

Restrictions: Adult-Gerontology Clinical Nurse Specialist-Critical Care/

Trauma students only.

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and hands-on-clinical skills in Critical Care/Trauma specialty. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### NURSING 415.28 Adult Gerontology Primary Care Nurse Practitioner Residency (1-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): nursing 414.28

Restrictions: Limited to students enrolled in the adult gerontology

primary care nurse practitioner specialty programs.

Activities: Clinical

Course offers students the opportunity to integrate scientific knowledge and evidenced-base practice for primary and specialty care of adolescents and adults across the lifespan. Emphasis is on the development of the nurse practitioner role in a variety of clinical settings.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### NURSING 415.29 Adult-Gerontology Nursing Clinical Residency (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Astrid Block, Colette Jappy
Prerequisite(s): No prerequisites

Restrictions: No restrictions

Activities: Clinical

Opportunity in which the student integrates scientific knowledge and clinical practice to develop advanced diagnostic, clinical decision making, and hands-on-clinical skills in the adult-gerontology population foci. Includes application/integration of research, consultation, and clinical leadership as appropriate.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### NURSING 445 System Intervention in Pediatric Nursing. (2-6 Units) Winter, Spring

Instructor(s): Jyu-Lin Chen Prerequisite(s): None

Restrictions: None

Activities: Clinical, Project

Clinical experience focuses on program/process/practice assessment, planning, and intervention in (a) pediatric specialty setting(s) to improve client care processes within the setting and/or across setting boundaries.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### NURSING 463.1 DNP Practicum (1-5 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to DNP students only

Activities: Fieldwork, Web work

Course provides opportunity for Doctor of Nursing Practice (DNP) students to develop leadership skills related to their advanced practice roles. Activities may include mentoring, teaching, decision making, consulting and other healthcare-planning experiences that integrate theory and evidence. Practice hours related to the DNP project may be included. Maximum hours per quarter will be individualized and approved by the course instructor.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? Yes

## NURSING 471 Practicum in Health Policy (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): N253, N262A

Restrictions: none Activities: Project

Provides students with a hands-on research experience and opportunity to work alongside faculty on a research or policy project that impacts public health. This is a mentored experience designed for students to participate in research activities that can be part of all stages of the research process depending on student interest and stage of the research. The specific learning needs to be discussed and agreed upon with the mentoring faculty and student.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Repeat course for credit? No

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes

### NURSING 472 Health Policy Residency (8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): N253, N262A, S228.

Restrictions: None
Activities: Project

Course provides an opportunity to apply and evaluate policy theories, concepts and skills in health policy under the supervision of a health policy faculty member or preceptor in a health policy setting.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### **Nursing Skills Lab (SKILLS LAB)**

#### SKILLS LAB 413.04 PMHNP Advanced Health Assessment Skills Lab (1 Units) Fall, Winter, Spring

Instructor(s): Jane Abanes, Katerina Melino

Prerequisite(s): None.

Restrictions: Psychiatric Mental Health nursing students.

Activities: Lab skills

An immersive, interactive lab experience that provides students with foundational skills for therapeutic relationship building and diagnostic interviewing. Using low-fidelity simulation, lab will develop psychiatric interviewing skills, motivational interviewing, and diagnostic reasoning.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SKILLS LAB 413.10 Family Health Care Skills Lab (1 Units) Fall

Instructor(s): Lisa Mihaly Prerequisite(s): None.

Restrictions: Consent of instructor.

Guided clinical laboratory experience designed to develop mastery of advanced health assessment skills.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SKILLS LAB 413.10A Advanced Practice Nursing Primary Care Procedures Lab (0.5 Units) Winter

Instructor(s): Becca Neuwirth
Prerequisite(s): None

Restrictions: No restrictions

Activities: Lab skills

In this course, through a series of labs, advanced practice nursing students will engage in hands-on experience performing a variety of common primary care procedures including, but not limited to, microscopy, long-acting reversible contraceptive methods, and outpatient dermatology procedures. Students will learn indications, risks, benefits, and alternatives of the various procedures; patient management; and patient follow-up.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SKILLS LAB 413.11 Advanced Practice Nursing Skills Lab in Pediatrics (1-2 Units) Fall

Instructor(s): Bridget Gramkowski, Mary Gallagher Prerequisite(s): Concurrent enrollment in N270

Restrictions: Adv. Practice Ped. Nursing, Acute Cre Ped. Nurse

Practitioner student or consent of instructor.

Activities: Lab skills

Course provides groundwork for advanced nursing practice health assessment skills, procedures, and history taking through practice in both the laboratory and clinical settings with a focus on the pediatric population.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### SKILLS LAB 413.12 Neonatal Skills Lab (1 Units) Fall

*Instructor(s):* Amy Renfro, Chrissy Smith Prerequisite(s): None.

Restrictions: Consent of instructor.

Activities: Lab skills

This skills lab will prepare the advanced practice registered nurse (APRN) to plan for and provide care for neonatal patients across neonatal care settings, from convalescence through acute illness. Integration of theoretical concepts with neonatal physiology and pathophysiology will be supported through interactive exercises that develop assessment and management skills necessary for practice in the neonatal care setting. Development of skills in neonatal procedures.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SKILLS LAB 413.13 Advanced Skills Application in Acute Care Pediatrics (1 Units) Winter

Instructor(s): Brittany Christiansen

Prerequisite(s): Concurrent enrollment in NURSING 255.06 or instructor approval.

Restrictions: Course enrollment is limited to ACPNP students or approval of the FOR.

Activities: Lab skills

This course provides students with the opportunity to obtain basic and advanced diagnostic and psychomotor skills for evaluation and management of infants, children, and adolescents with complex acute, chronic, and critical illness. Emphasis is placed on applying evidence-based practice concepts related to information gathering, advanced physical assessment, patient presentation, and procedural skills across the spectrum of pediatric acute care.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### SKILLS LAB 413.15A Skills Lab for Sexual, Reproductive and Gender Health (0.5-2 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): NSL 413.10

Restrictions: Must be enrolled in the Nurse-Midwifery specialty.

This laboratory course focuses on development of necessary clinical and communication skills for safely and respectfully providing high quality nurse-midwifery care. Student skill development will be specific to advanced practice management in outpatient and inpatient settings, including procedures requiring both technical skill and communication skill.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### SKILLS LAB 413.20A Acute Care Nurse Practitioner Health Assessment Skills Lab (1 Units) Fall

Instructor(s): Scott Weyland
Prerequisite(s): None.

Restrictions: Adult Gerontological Acute Care Nurse Practitioner students

only.

Activities: Lab skills

Course provides an opportunity to apply theory in clinical practice to further develop skills and to extend clinical expertise in selected aspects of physiological nursing. Guided clinical laboratory experience designed to develop mastery of advanced physical assessment and exam skills.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SKILLS LAB 413.25B Clinical Electrocardiography Skills Lab (1 Units) Spring

Instructor(s): Michele Pelter

Prerequisite(s): Concurrent enrollment in N225

Restrictions: Requires instructor approval.

Activities: Web work

Case-based learning on how to interpret standard 12-lead electrocardiograms and rhythm strips to enhance clinical decision-making.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SKILLS LAB 413.28 AGNP Advanced Health Assessment Skills Lab (1 Units) Fall

Instructor(s): Helen Horvath
Prerequisite(s): None

Restrictions: Adult Gerontology Nurse Practitioner students.

Supervised application of health assessment concepts and skills. Students perform systematic health assessments of adults with a focus on differentiating normal from abnormal findings.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SKILLS LAB 413.29 Adult-Gero Clinical Nurse Specialist Health Assessment (1 Units) Fall

Instructor(s): Denise Li
Prerequisite(s): None

Restrictions: None\r\n

Activities: Lab skills

Guided learning activity to develop advanced nursing practice health assessment and physical examination skills. Learners practice various health and physical assessments of adults and older adults with a focus on differentiating normal from abnormal findings.

School: Nursing

**Department:** Physiological Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SKILLS LAB 413.50 Behavioral Approaches for Diabetes Across the Lifespan Lab (1 Units) Spring

Instructor(s): Carolina Noya

Prerequisite(s): Must be concurrently enrolled in didactic course (N296B) Behavioral Approaches for Diabetes Across the Lifespan

Restrictions: Limited to 20

N301.50 Behavioral Approaches for Diabetes Management Across the Lifespan. Course focuses on the complex behavioral, educational, and family skills required to support patients in living with diabetes. The lab focuses on student skill development in varied forms of behavioral and family intervention (e.g. motivational interviewing; coping skills training, problem-solving interventions, behavioral goal setting and follow-up).

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SKILLS LAB 420 Family Health Care Advanced Health Assessment Skills Lab (1 Units) Winter

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

The course focuses on performance of systematic health assessment throughout the lifespan, leading to a growing ability to differentiate between normal and abnormal findings. Students will identify and acknowledge the impact of stressors that arise from physical, social, developmental, and occupational sources. The course will utilize simulation-based activities to support the application of health assessment concepts and skills.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### SKILLS LAB 430 PMHNP Behavioral Health Skills Lab (1 Units) Winter

Instructor(s): Staff Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Workshop, Lab skills

This course is an immersive, interactive lab experience that provides PMHNP students with foundational skills for therapeutic relationship building and diagnostic interviewing. It introduces the student to selfreflective practice and principles of psychotherapeutic care. Students will learn techniques for establishing a therapeutic alliance with individuals across the lifespan. Using simulation techniques, students will develop skills in psychiatric interviewing and diagnostic reasoning.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### SKILLS LAB 440A Adult Gerontology Advanced Health Assessment Skills Lab (1 Units) Spring

Instructor(s): Staff Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lab skills

This skills lab course develops clinical skills to expand expertise in selected aspects of advanced practice nursing. Didactic evaluation along with guided clinical laboratory experiences and return demonstrations are designed to develop mastery of advanced physical assessment examination\r\ntechniques and skills focusing on normal to identify abnormal.

School: Nursing

**Department: Physiological Nursing** 

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### SKILLS LAB 450 AGPCNP Advanced Health Asseessment Skills Lab (1 Units) Winter

Instructor(s): Staff Prerequisite(s): None

Restrictions: Open to PB-DNP students or consent of instructor

Activities: Lab skills

Guided learning activity to apply advanced practice nursing health assessment concepts and develop physical examination skills. Students perform systematic health assessment of adults with a focus on differentiating normal from abnormal findings.

School: Nursing

**Department:** Community Health Care Systems

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### SKILLS LAB 460 Pediatric Advanced Practice Nursing Skills Lab (1 Units) Winter

Instructor(s): Staff Prerequisite(s): None

Restrictions: Open to PB-DNP program students or with consent of

instructor.

Activities: Lab skills

This course provides groundwork for advanced nursing practice health assessment skills, procedures, and history taking through practice in both the laboratory and clinical settings with a focus on the pediatric population.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

### SKILLS LAB 470 Advanced Practice Neonatal Nursing Skills Lab (1 Units) Winter

Instructor(s): Staff
Prerequisite(s): None

Restrictions: Open to PB-DNP students or with consent of instructor

Activities: Lecture

The course is designed to equip the neonatal advanced practice registered nurse (APRN) student with the knowledge and practice opportunities necessary to perform common neonatal procedures in their clinical rotations

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

### **Nutrition (NUTRITION)**

## NUTRITION 218 Nutrition Therapy: Diet and Disease (2 Units) Fall, Winter

Instructor(s): Cynthia Belew Prerequisite(s): None.

Restrictions: None.

Activities: Web work

In this course, students will analyze and discuss nutrition policy and research to understand the profound impact of diet on health and disease. They will learn about the impact of the microbiome and mitochondria on health and how to identify and correct nutrient deficiencies to promote optimal health in both the prevention and management of disease.

School: Nursing

**Department:** Family Health Care Nursing

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# **Obstetrics, Gynecology, and Reproductive Science (OB GYN R S)**

### OB GYN R S 110 Ob/Gyn Core Clerkship (2-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Jeannette Lager
Prerequisite(s): Third-year standing.

Restrictions: UCSF 3rd and 4th year medical students only.

Activities: Seminar, Clinical

The student will provide antepartum, intrapartum, and postpartum care of pregnant women, demonstrating competency on how to do a vaginal delivery under supervision. The student will participate in the operating room with ambulatory as well as major surgeries. The student will work with faculty preceptors and will demonstrate competency in the well woman exam, contraceptive counseling and osteoporosis counseling.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# OB GYN R S 130.01 CIEx -Surgical Gynecology Clinician Educator Apprenticeship (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Jeannette Lager

 $\label{precedent} Prerequisite(s): Students\ interested\ in\ this\ CIEx\ must\ receive\ approval$ 

from Dr. Lager prior to enrollment.

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course is designed for students who are interested in exploring a career as an OBGYN clinician educator. Students will work closely with 1-2 clinician educator attendings, including going to the OR and/or clinics, and working on projects.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 130.02 CIEx - Reproductive Endocrinology and Infertility (3 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Jeannette Lager Prerequisite(s): None.

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will work with Reproductive Endocrinology and Infertility specialists, seeing patients who are seeking counseling for infertility or other disorders of the reproductive tract.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## OB GYN R S 130.03 CIEx - Gynecology Minimally Invasive Surgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Jeannette Lager
Prerequisite(s): None

Restrictions: SOM Foundations 2 student in good Academic Standing

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will spend 2 weeks in the clinic setting and operating room, and will be involved with preoperative evaluation, surgical management and postoperative care.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 130.04 CIEx - Career Exploration (3 Units) Fall, Summer

Instructor(s): Jeannette Lager Prerequisite(s): None

Restrictions: Student must be currently enrolled in F2 courses.

Activities: Clinical, Project

Explore interdisciplinary clinical experiences. Designed for students either deciding between OBGYN and another discipline or for students interested in interdisciplinary careers, such as OB-Psych, OB-Radiology, OB-Cardiology, etc. Students will be scheduled for OB-Gyn clinics and/or inpatient rotations and will also arrange for concurrent clinical experiences in one other discipline of interest. Concluding project required.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### OB GYN R S 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Jeannette Lager Prerequisite(s): Satisfactory completion of Obstetrics and Gynecology 110, Pediatrics Core Clerkship and 110, and either Medicine 110 or Surgery 110 Core Clerkships

Restrictions: 4th Year Medical students

Activities: Clinical

Advanced clinical clerkship, obstetrics and/or gynecology at other accredited hospital, as individually arranged, and approved by department OB GYN R S

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### OB GYN R S 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Jeannette Lager Prerequisite(s): Satisfactory com-pletion of Obstetrics and Gynecology 110, Pediatrics Core Clerkship and 110, and either Medicine 110 or Surgery 110 Core Clerkships

Restrictions: 4th Year medical students

Activities: Clinical

Advanced clinical clerkship, obstetrics and/or gynecology at other accredited hospital, as individually arranged, and approved by department OB GYN R S

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### OB GYN R S 140.05 Advanced Inpatient Ob/Gyn Clerkship - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Morgan, Christopher Downer

Prerequisite(s): Satisfactory completion of Obstetrics and Gynecology

110, Pediatrics 110, and Medicine 110 or Surgery 110.

Restrictions: None

Activities: Clinical, Conference

Course will provide a 4th year student experience in labor and delivery and gynecology services. The goal of this course is to expose student to normal labor, operative vaginal deliveries, cesarean sections, high-risk obstetrical patients, basic surgical skills in the performance of obstetric procedures, inpatient assessments of acute gynecologic issues, and patient management of gynecologic surgery patients. Student's schedule is divided between labor, delivery and gynecology experiences.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OB GYN R S 140.06 Advanced Ob/Gyn Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Jiajia Zhang

Prerequisite(s): Obstetrics and Gynecology 110, Pediatrics 110, and either

Medicine 110 or Surgery 110, or consent of instructor.

**Restrictions: None** 

Activities: Clinical

The clerk will function as an acting intern on the gynecology inpatient service. Some gynecologic outpatient and emergency room experience will be possible as well as inpatient and surgical gynecology.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### OB GYN R S 140.09 High-Risk Pregnancy (6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Naomi Stotland, Katherine Connolly Prerequisite(s): Obstetrics and Gynecology 110.

Restrictions: Fourth-year student

Activities: Lecture, Seminar, Clinical, Conference

Advanced clerkship focusing on outpatient special obstetrical care clinics and inpatient management of high-risk antepartum patients. Duties will include presentations at conferences, journal clubs, and at least one review of a pertinent topic.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 140.11 Advanced Gynecological Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Tami Rowen

Prerequisite(s): Obstetrics and Gynecology 110, Pediatrics 110, and either Medicine 110 or Surgery 110.

Restrictions: Fourth year medical students

Activities: Seminar, Clinical, Conference

Advanced clerkship focusing on benign gynecologic conditions. Includes experience in outpatient clinics, operating room, and emergency room. Duties will include presentations at conferences, journal clubs, and at least one review of a pertinent topic.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 140.12 Family Planning (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Eleanor Drey

Prerequisite(s): Ob Gyn 110, Pediatrics 110 and either Mediicne 110 or

Surgery 110. Consent of intructor.

Restrictions: Fourth year medical student

Activities: Clinical, Project

This family planning clerkship focuses on outpatient abortion and contraception services. The student will function as the senior student member of the family planning team at the Women's Option Center at San Francisco General Hospital.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 140.16 Introduction to Gynecologic Oncology (3 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Naomi Stotland, Lee-may Chen Prerequisite(s): Ob Gyn R S 110.

Restrictions: UCSF Medical students only.

Activities: Lecture, Seminar, Clinical

The students will work with the gynecologic oncology team from UCSF, which includes UCSF ob-gyn residents, Fellows in Gyn Onc, and attendings at MZ Hospital. Clinical activities will include scrubbing in on cases in the OR, outpatient clinic once a week, attendance at Tumor Board weekly, and providing medical care for inpatient gynocologic cancer patients. A topic presentation is required at the end of the rotation.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### OB GYN R S 140.17 Introduction to Family Planning (3.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Eleanor Drey

Prerequisite(s): Must have completed OB 110 Core Clerkship.

Restrictions: UCSF Medical Students Only

Activities: Clinical

The student will work in the outpatient Women's Options Center with residents, nurse practitioners and attending physicians to learn about the newest developments in contraceptive technology and abortion. Clinical skills to be developed will include advanced pelvic exam skills and communication skills with patients. A topic presentation will be presented at the end of the rotation. Lecture:4hrs, Seminar:4hrs, Conference:2hrs, Independent Study:2hrs, Clinical Exp/Patient Contact:30hrs

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/
Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### OB GYN R S 140.18 Introduction to Reproduction Endocrinology & Infertility (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Marcelle Cedars

Prerequisite(s): OB GYN RS 110

Restrictions: UCSF Medical Students Only

Activities: Clinical

The student will work with fellows and attendings in assessment and work-up of infertility and endocrine problems e.g. prolactinomas, polycystic ovarian disease, etc. Some time will be spent in the embryology lab, but most of the time will be spent with patients, including procedures such as vaginal ultrasound, ovum aspiration. A topic presentation by the student will be expected at the end of the rotation.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

### OB GYN R S 140.20 Gynecologic Oncology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Lee-may Chen Prerequisite(s): OB GYN R S 110 Core Clerkship

Restrictions: 4th year students interested in a career in ob-gyn, surgery, or oncology.

Activities: Clinical, Project

The students will work with the gynecologic oncology team from UCSF, which includes UCSF ob-gyn residents, Fellows in Gyn Onc, and attendings at MZ Hospital. Clinical activities will include scrubbing in on cases in the OR, outpatient clinic once a week, attendance at Tumor Board weekly, and providing medical care for inpatient gynecologic cancer patients. A topic presentation is required at the end of the rotation.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### OB GYN R S 140.21 Maternal Fetal Medicine - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Morgan

Prerequisite(s): Completion of Ob-Gyn core clerkship or the equivalent.

Restrictions: None.

Activities: Clinical, Conference

This course will provide a fourth-year student with an in-depth experience in high-risk pregnancies under the direct supervision of the Maternal-Fetal Medicine faculty. Taking place in a 5,000 sq. ft. state-of-the-art perinatal diagnostic center, this course will include hands-on experience in targeted ultrasound; vaginal ultrasound and Doppler studies. The student will participate in the management of a wide variety of maternal-fetal complications.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### OB GYN R S 140.22 High-Risk Obstetrics - ZSFG (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Biftu Mengesha
Prerequisite(s): OB GYN R S 110\r\nPEDIATRICS 110\r\nMEDICINE 110\r\nSURGERY 110

Restrictions: The prerequisite courses listed above.

Activities: Clinical

The student will assume care of hospitalized antepartum patients, participate in the High Risk OB clinic, and have an opportunity to develop ultrasound skills. Evidenced-based topic presentation during the last week. Three night calls involved including one 24-hour call on the weekend which may include assisting at obstetrical deliveries.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 140.24 Gynecologic Oncology Clerkship - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Tim Nguyen Nguyen, Jana Freeman Prerequisite(s): Third Year OBGYN Course

Restrictions: none

Activities: Clinical, Project

The students will work with the gynecologic oncology team from UCSF-Fresno, which includes UCSF-Fresno ob-gyn residents and attendings at CRMC. Clinical activities will include scrubbing in on cases in the OR, outpatient clinic once a week, attendance to Tumor Board biweekly, and providing medical care for inpatient gynecologic cancer patients. A topic presentation is required at the end of the rotation.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 140.25 Prenatal Diagnosis (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland

Prerequisite(s): OB GYN R S 110\r\nOB GYN R S 110

Restrictions: 110 ob-gyn

Activities: Clinical

Students will work in the prenatal diagnosis clinic and be introduced to genetic counseling, perinatal consultation, ultrasound imaging, chorionic villus sampling, amniocentesis and multifetal reduction procedures. Students will learn to appreciate the complex landscape of screening and diagnostic options available to couples seeking information about the health of their fetuses.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 140.30 Introduction to Maternal Fetal Medicine (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Neda Ghaffari Prerequisite(s): 110 ob, OB GYN R S 110

Restrictions: This course is designed for students interested in matching in to obgyn residency programs. (We are sure we want this restriction because we need to save this course for students who need it to build their CVs for residency applications.)

Activities: Clinical

This course is designed to introduce students who are interested in exploring a career in OBGYN to the Maternal Fetal Medicine subspecialty. The student will work with MFM faculty in clinic, on labor and delivery, attend conferences and didactics, and complete a short paper/presentation.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## OB GYN R S 140.40 Advanced OBGYN Specialized - Fresno (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Amy Autry
Prerequisite(s): OBGYN 110

Restrictions: none

Activities: Clinical, Project

Students taking this elective will work with an OBGYN faculty member to create a clinical schedule that allows them to explore a specific area of OBGYN (ex: gender affirming care, family planning, etc). This elective is designed for 4th year students who plan to apply into OBGYN in order to learn more about a specific subfield of OBGYN and how that care is provided to in Fresno.

School: Medicine

**Department:** Obstetrics, Gynecology And Reproductive Science **May the student choose the instructor for this course?** No **Does enrollment in this course require instructor approval?** Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## OB GYN R S 150.01 Research in Obstetrics & Gynecology (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Naomi Stotland, Jeannette Lager

Prerequisite(s): Consent of instructor and chairperson of the department.

Activities: Fieldwork, Project, Lab science

Students are to work on clinical or nonclinical research project under the direction of a faculty member.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### OB GYN R S 170.02 UTEACH (1-2 Units) Fall

Instructor(s): Naomi Stotland, Kate Frometa, Rebecca Amirault

Prerequisite(s): None

Restrictions: None

Activities: Lecture, Clinical

Medical and psychosocial issues of a normal pregnancy will be discussed in an interactive lecture format. A longitudinal clinical experience with a pregnant woman and a provider will be offered to a limited number of students.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OB GYN R S 170.03 Family Planning and Reproductive Choices (1 Units) Fall

Instructor(s): Naomi Stotland, Andrea Jackson

Prerequisite(s): None

Restrictions: None

Activities: Lecture

Faculty speakers will address reproductive health disparities and the barriers that people face when attempting to access family planning services. The topics to be covered include the legal, societal, political and cultural factors preventing women from being able to exercise choices about their reproductive health care. Several of our class sessions will be focused on skill-building workshops, including media training, hands-on medical interventions, counseling, and educational advocacy.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### OB GYN R S 170.04 Ob-Gyn: Introduction to Procedures and Surgical Skills (1 Units) Fall

Instructor(s): Naomi Stotland, Gaetan Pettigrew Prerequisite(s): None

Restrictions: no

Activities: Lecture

Obstetrics and gynecology is a diverse field with a wide range of procedures and surgical skills. This elective will allow first and second-year students to gain hands-on experience in common outpatient and inpatient skills including laparoscopic surgery, suturing, biopsies of the uterus, and diagnostic ultrasound in the simulation center.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OB GYN R S 170.06 Black Health (1 Units) Fall

Instructor(s): Naomi Stotland, Andrea Jackson Prerequisite(s): None

Restrictions: UCSF students only. Elective will be available to all UCSF health professional schools.

Activities: Lecture

This course will address health disparities present within the African American community. Focus will be on illnesses that disproportionately affect Blacks as well as the social conditions that impact disease acquisition. The role of the medical community and individual health care providers as advocates for social change will also be discussed.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### OB GYN R S 170.08 Incarcerated Women's Health (1 Units) Fall

Instructor(s): Naomi Stotland, Andrea Jackson Prerequisite(s): No

Restrictions: no

Activities: Lecture

This course is designed to expose first and second year medical students to the facilities and health care services available to female inmates in San Francisco's county jail; to educate them on the illnesses that afflict this particular population; and to provide students the opportunity to participant in women's reproductive health teaching workshops for the inmates (in the SF jail).

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### OB GYN R S 170.13 Introduction to High Value Care (1 Units) Winter

Instructor(s): George Sawaya, Naomi Stotland

Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course will be an introduction to the ideas of overuse and healthcare value for early career health professional students. This course will give students tools to identify low value care, elicit patient preferences and hold productive conversations with superiors about appropriate patient care. Each week, the course will host a speaker on a topic related to overuse and present a case study related to that topic. Finally, all students will be asked to create a capstone project.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## OB GYN R S 170.14 Climate Justice, Environment, Health & Professional Activism (2-2.5 Units) Fall, Winter

Instructor(s): Jeannette Lager, Bob Gould

Prerequisite(s): none

Restrictions: none

Activities: Lecture, Project

Students will learn from leaders in the field how climate change and environmental toxins disproportionately affect low income, communities of color, children and pregnant people, exacerbating health inequities. Topics will include prenatal environmental health, impacts of hazards throughout the lifespan, health effects of policy, and provider environmental activism. Students will gain knowledge of climate change and how environmental hazards disproportionately affect marginalized populations.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### OB GYN R S 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

Department: Obstetrics, Gynecology And Reproductive Science
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### **Ophthalmology (OPHTHALMOL)**

## OPHTHALMOL 130.01A CIEx - Ophthalmology Elective - VAMC-SF (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Bryan Winn
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. In this Ophthalmology elective, students will have opportunities to recognize common diagnoses in ophthalmology practice, observe common procedures, and compose treatment plans for these common conditions.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## OPHTHALMOL 130.01B CIEx - Ophthalmology Elective - UCSF Mission Bay (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Neeti Parikh
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. In this Ophthalmology elective, students will have opportunities to recognize common diagnoses in ophthalmology practice, observe common procedures, and compose treatment plans for these common conditions.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### OPHTHALMOL 130.01C CIEx - Ophthalmology Elective -Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Steven Fogg Prerequisite(s): none

Restrictions: Course limited to 3rd year/F2 students

Activities: Clinical

This is a Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. In this Ophthalmology elective, students will participate with members of the Ophthalmology team in both the inpatient surgery service and in the outpatient setting.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OPHTHALMOL 140.01A Advanced Ophthalmology Clkshp (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Neeti Parikh

Prerequisite(s): OPHTHALMOL 140.05 or a CIEx in ophthalmology

Restrictions: none

Activities: Lecture, Clinical, Independent Study

This is a clinical sub internship in ophthalmology at a UCSF site (Mission Bay). Students will be expected to work up and present patients, and also attend surgery and postoperative clinics. Students should enroll in either 140.01A or 140.06 for their ophthalmology sub internship.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OPHTHALMOL 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Neeti Parikh

Prerequisite(s): Consent of instructor., OPHTHALMOL 140.05 or a CIEx in

ophthalmology

Restrictions: NONE

Activities: Lecture, Clinical, Project

Clinical clerkship in approved outside hospitals by special arrangement and approval by the dean and the chairperson of the department.\r \nStudents will do a clinical elective in ophthalmology. They will be expected to work up and present patients, and attend surgery and postoperative clinics

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### OPHTHALMOL 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Neeti Parikh

Prerequisite(s): Consent of instructor, OPHTH 140.05 or a CIEx in

Ophthalmology

Restrictions: None

Activities: Lecture, Clinical, Project

Clinical clerkship in approved outside hospitals by special arrangement and approval by the dean and chairperson of the department.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No

Repeat course for credit? Yes

### OPHTHALMOL 140.05 Ophthalmology for Primary Care (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Neeti Parikh Prerequisite(s): None

Restrictions: None

Activities: Clinical

Two-week elective providing mastery of eye examination, improving ophthalmology skills, improving accurate visual acuity assessment and screening techniques with slit lamp examination. Patients will be evaluated in an outpatient setting. Didactic instruction will be provided by course preceptors and online curricular material. Students should enroll in either 140.06 or 140.01A for their ophthalmology sub internship (should not enroll in both)

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### OPHTHALMOL 140.06 Advanced Ophthalmology Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Bryan Winn, Neeti Parikh

Prerequisite(s): OPHTHALMOL 140.05 or a CIEx in ophthalmology

Restrictions: none

Activities: Lecture, Clinical

This is a clinical sub internship in ophthalmology at the VA. Students will be expected to work up and present patients, and also attend surgery and postoperative clinics. Students should enroll in either 140.06 or 140.01A for their ophthalmology sub internship (should not enroll in both)

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OPHTHALMOL 150.02 Research in Ophthalmology (3-18 Units) Fall, Winter, Spring, Summer

Instructor(s): Neeti Parikh

Prerequisite(s): Consent of instructor and chairperson of the department.

Restrictions: No

Activities: Fieldwork, Project, Lab science

A research project under the direction of a member of the faculty carried out in the Department of Ophthalmology.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### OPHTHALMOL 160.01 Introduction to Clinical Ophthalmology (1 Units) Fall

Instructor(s): Neeti Parikh

Prerequisite(s): First year medical student or above.

Restrictions: none
Activities: Lecture

Faculty from the Department of Ophthalmology are invited to give lectures. Students will gain knowledge of common and uncommon eye problems that may be seen in internal medicine, family practice, the emergency room, the ophthalmologist's office and in an ophthalmology operating room. Students will gain an appreciation of the clinical and surgical duties of an ophthalmologist and learn about the various subspecialties and career paths in Ophthalmology.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### OPHTHALMOL 198 Supervised Study (1-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Neeti Parikh

Prerequisite(s): Consent of instructor preceptor and approval of third-and

fourth-year coordinator

Restrictions: Medical students only

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Ophthalmology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### **Oral and Craniofacial Sciences (OR** CRA FAC)

#### OR CRA FAC 204 Biology of Craniofacial Development and Tooth Movement (2 Units) Spring

Instructor(s): Andrew Jheon Prerequisite(s): None

Restrictions: None

Activities: Lecture

This lecture series occurs once per week (1-hr) for first year dental residents and MS students. Orthodontic tooth movement is a complex process defined by the supporting craniofacial structures including the periodontium (i.e., enamel, dentin, cementum, bone, and periodontal ligament). This course will focus on the basic biological concepts and mechanisms related to craniofacial development and orthodontic tooth movement (OTM). This course will also provide evidence for and against the

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### OR CRA FAC 205 Advanced Topics in Pharmacology for the Dental Specialist (1 Units) Spring

Instructor(s): Mark Ryder, Brian Bast, Caroline Shiboski, Gary Armitage, **Sharon Youmans** 

Prerequisite(s): None

Restrictions: Enrollment in the first or second year of the postgraduate/ residency programs in the School of Dentistry including Pediatric Dentistry, General Practice Residency, Dental Public Health, Endodontics, Orthodontics, Periodontics, Prosthetic Dentistry, Oral Surgery. Additional enrollment per the request of the student and course director approval.

Activities: Lecture

The basic concepts in clinical applications of the major classes of pharmacological agents used in both general and specialty dental practices will be presented. Faculty from the school of pharmacy and dentistry will first present basic principles in the application of antimicrobials, anti inflammatories, analgesics, bisphosphonates, drugs for major systemic conditions, and major drug interactions, followed by direct clinical correlations and applications.

School: Graduate Division

**Department:** Oral And Craniofacial Sciences MS Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory)

**Graduate Division course:** Yes Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes Repeat course for credit? No

#### OR CRA FAC 215 Laboratory Rotation (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor

Restrictions: For graduate students in the Oral & Craniofacial Sciences Program only

A laboratory rotation course to familiarize first-year graduate students with various approaches to research in Oral & Craniofacial Sciences (OCS). Rotations are six weeks each, with three rotations in total. Students can select the laboratory of any faculty member within the OCS Program.

School: Graduate Division

Department: Oral and Craniofacial Sciences PhD Program May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? Yes

#### OR CRA FAC 220 Seminar Series (1 Units) Fall

Instructor(s): Nathan Young
Prerequisite(s): unk

Restrictions: unk
Activities: Seminar

A seminar series to introduce information, resources, and skills for students to successfully engage in independent MS-level research in the OCS program. Sessions consist of faculty and guest speaker-led interactive lectures covering a range of topics related to current best practice in oral biology research, including basic, clinical, and translational research.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### OR CRA FAC 221 Current Concepts in Oral Biology (2.5 Units) Winter

Instructor(s): Ralph Marcucio

Prerequisite(s): Consent of graduate advisor and instructor

Restrictions: None

Activities: Lecture, Discussion

Students will develop a working knowledge of oral and craniofacial organogenesis, growth, and metabolism and understand the pathogenesis and treatment of heritable and acquired disorders of oral and craniofacial tissues and organs. \r\nstudents will identify areas of interest within the field of oral and craniofacial science that may serve as a focus for future research activity leading to the Ph.D. and develop strategies for addressing outstanding critical questions in the field.

School: Graduate Division

**Department:** Oral and Craniofacial Sciences PhD Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

### OR CRA FAC 222 OCS PhD Seminar Series (1 Units) Fall, Winter, Spring

Instructor(s): Ralph Marcucio
Prerequisite(s): None

Restrictions: Students must be enrolled in the OCS Graduate Program.

Activities: Seminar

OCS DDS/PhD and PhD students registered for this course will be required to attend a total of 10 scientific seminars during the academic year and submit a signed log of all of those attended. \r\n\r\nAdditionally, each student is required to submit a review of 3 of the 10 seminars to the Course Instructor by the last day of the Spring Quarter.

School: Graduate Division

Department: Oral and Craniofacial Sciences PhD Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

#### **OR CRA FAC 224 Host Response (2 Units) Spring**

Instructor(s): Mark Ryder

Prerequisite(s): Consent of graduate advisor and instructor

Restrictions: Open to graduate and postgraduate students in the Oral and Craniofacial Sciences program.

Activities: Lecture, Seminar

Components of the immune system, survey of the various immunologic mechanisms in host responses, and current working concepts of the immune system. Overview of consequences that failure, exaggeration, or inability to distinguish self from non-self, may have for the host.

School: Graduate Division

**Department:** Oral And Craniofacial Sciences MS Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### OR CRA FAC 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff
Prerequisite(s): None

Restrictions: None

Activities: Project

M.S. thesis or Ph.D. dissertation research under the mentorship of Oral & Craniofacial Sciences (OCS) faculty

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### OR CRA FAC 270 Journal Club (1 Units) Spring

Instructor(s): Ralph Marcucio
Prerequisite(s): None

Restrictions: None

Critical review of current journal articles pertinent to oral biology. Instruction and feedback in the choice of topic, style and effectiveness of presentations are provided, as well as critical discussion of articles and relevance to current research.

School: Graduate Division

**Department:** Oral and Craniofacial Sciences PhD Program May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OR CRA FAC 283 Introduction of Biostatistics for Dentistry (2.5 Units) Fall

Instructor(s): Alfa-Ibrahim Yansane

Prerequisite(s): None.

Restrictions: None.

Activities: Lecture

This is an introductory level course in biostatistical methods. There will be 9 modules discussing descriptive statistics, probability application and theory, epidemiological study design, hypothesis testing and regression based methods. Each lecture will have both written statistical and computing components. Stata 13 will be taught and used.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### OR CRA FAC 295 Masters Studies Journal Club (1 Units) Spring

Instructor(s): Nathan Young
Prerequisite(s): None

Restrictions: Must be a student in a School of Dentistry postgraduate

program.

Activities: Seminar

Critical review of current journal articles pertinent to craniofacial research and oral biology. Faculty in OCS program will assist in the selection of papers for review in the MS Journal Club.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### OR CRA FAC 296 Master's Thesis Project Design (1 Units) Fall, Summer

Instructor(s): Nathan Young
Prerequisite(s): None.

Restrictions: Limited to Students enrolled in the MS program in Oral and Craniofacial Sciences.

Activities: Project

Masters students in oral and cranifacial sciences shall establish their thesis committee; prepare, present, and modify as necessary the thesis project proposal. Students can take OCS 296 for either 1 or 2 consecutive quarters. The grade will be assigned after completion of the course. If the students do not complete the course after two quarters and incomplete will be given for the course.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/
Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

# Oral and Maxillofacial Surgery (OR MX SURG)

OR MX SURG 140.28 Plastic Surgery Oral & Maxillofacial Surgery - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Woo Prerequisite(s): Surgery 110

Restrictions: none
Activities: Clinical

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of plastic surgery and Oral and Maxillofacial Surgery. There is hands-on experience in the operating room and clinic. Students will participate in the care of patients with congenital anomalies, traumatic deformities, acquired defects requiring reconstruction, including free tissue transfer and hand surgery, maxillofacial infection, trauma, and pathology, and elective surgeries.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No

Repeat course for credit? No

### OR MX SURG 140.30 Dentistry for Medical Students (3-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Brian Bast

Prerequisite(s): Completion of year 1 of medical school.

Restrictions: OMFS student enrolled in the SOM.

Activities: Lecture, Clinical, Workshop

Students will conduct oral screenings and evaluate patients with dental problems including toothache, oral pathology, dentofacial deformities, temporomandibular joint pathology, and preprosthetic problems. They will learn to give intraoral injections, perform intraoral biopsies, extract simple teeth and assist with more major surgical procedures. Students will demonstrate progressive competence, independence, and advanced skill in patient care delivery based on student level in the program.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### OR MX SURG 416 History Taking and Physical Diagnosis (2.5 Units) Summer

Instructor(s): Thad Connelly, M Pogrel, Rebeka Silva, Brian Bast, Shelley Miyasaki

Prerequisite(s): Enrollment in a DENTAL postgraduate program

Restrictions: Enrollment in Periodontics, Oral/Maxillofacial Surgery, GPR, Oral Med, Prostho, or Endo postgraduate program

Activities: Seminar

This course is designed to familiarize students with the techniques of history taking and the basic methods of physical examination. Practical experience in physical examination and historical interviews will be demonstrated in the hospital environment.

School: Dentistry

**Department:** Oral And Maxillofacial Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### **Oral Medicine (ORAL MED)**

#### **ORAL MED 208 Oral Diseases (3 Units) Winter**

Instructor(s): Kamal Al-Eryani, Alessandro Villa

Prerequisite(s): Completion of courses in basic general pathology and oral pathology.

Restrictions: Enrollment in a graduate academic or postgraduated professional program or permission of instructor.

Activities: Lecture

This course updates, expands and applies the student's knowledge of diseases affecting the oral soft tissues, jaws and salivary glands to improve their skills in clinical decision making through analysis of clinical cases and histological specimens in an interactive format.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

### ORAL MED 489 Clinical Oral Medicine (2.5-14 Units) Fall, Winter, Spring, Summer

Instructor(s): Kamal Al-Eryani Prerequisite(s): None.

Restrictions: Enrollment in the postgraduate oral medicine program.

Activities: Clinical

This clinical course provides comprehensive experience in treating oral medicine conditions. Students learn to apply knowledge of history-taking and differential diagnosis, utilize various diagnostic techniques such as biopsy, cytology and certain clinical pathology laboratory tests; interpret results, prescribe treatment and follow up. Expectations shift as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### **Oral Radiology (ORAL RAD)**

### ORAL RAD 400 Advanced Oral and Maxillofacial Radiology (1 Units) Spring

Instructor(s): Rumpa Ganguly
Prerequisite(s): none

Restrictions: Dentistry post graduate students

Activities: Lecture

The principle objective of this course is to learn a comprehensive, systematic approach to radiographic interpretation involving 2D and 3D images with emphasis on Cone Beam Computed Tomography (CBCT). Students will learn technical and diagnostic concepts of various advanced imaging modalities in Oral and Maxillofacial Radiology. A second major objective is to learn the imaging principles and applications of CBCT in dental practice.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### **Orthodontics (ORTHODONT)**

### ORTHODONT 183 Fundamentals of Clear Aligner Orthodontic Treatment (1 Units) Fall

Instructor(s): Snehlata Oberoi
Prerequisite(s): None

Restrictions: Students enrolled in the D3, D4, IDP3, and IDP4 programs

Activities: Lecture

This course introduces the fundamentals of orthodontic clear aligner treatment to the predoctoral dental student. Clear aligner software, will be presented and it's applications to treatment planning and various non complex orthodontic malocclusions. The types of cases that can and can not be treated with clear aligners will be described.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## ORTHODONT 184 Clinical Management of Clear Aligner Treatment (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Snehlata Oberoi

Prerequisite(s): The student has to have passed ORTHODONT 183

Restrictions: Students enrolled and in good standing D3, D4, IDP3 and  $\,$ 

IDP4

Activities: Clinical

This clinical course provides experience in treating orthodontic patients, who have a dental malocclusion, with the Invisalign appliance.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 189 Adv Orthodontics in Gen Practice (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Snehlata Oberoi

Prerequisite(s): Second, third and fourth year standing in the dental school or a student in the international dental student program.

Restrictions: None

Activities: Clinical

Second, third, and fourth-year dental students as well as international dental students will work closely with second- and third-year orthodontic residents in the clinical management of patients requiring comprehensive orthodontic treatment delivered by the orthodontic specialist.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHODONT 440 Orientation to Clinical Orthodontics (1 Units) Summer

Instructor(s): Christine Hong

Prerequisite(s): Enrolled in orthodontic postgraduate course

Restrictions: None
Activities: Lecture

This course introduces basic concepts in orthodontics beginning with skeletal and dental classifications of malocclusions, and then use of cephalometric, dental cast models, and facial pictures to evaluate the symmetry and proportions of the face.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 441 Introduction to Orthodontic Techniques (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Christine Hong
Prerequisite(s): None.

Restrictions: Enrollment in postgraduate professional program in School

of Dentistry

Activities: Lecture, Seminar

The theory of removable orthodontic appliances, primarily of the Hawley type, will be taught and demonstrated. The design of various appliances and the fabrication of a typical retainer will be demonstrated.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

## ORTHODONT 442 Introduction to Diagnosis and Treatment Planning (1 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Mona Bajestan Prerequisite(s): None.

Restrictions: Enrollment in the postgraduate orthodontic program

Activities: Lecture

This course introduces how to develop the problem list, treatment goals, and how to create a treatment plan to accomplish the treatment goals. Diagnostic and treatment planning criteria will be taught that demonstrate the specific steps in developing an efficient treatment plan.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ORTHODONT 443 Review of Classic Texts in Orthodontics: Proffit/Graber (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Mona Bajestan

Prerequisite(s): Enrolled in 1st year post graduate orthodontic program or consent of the instructor.

Restrictions: None.

Activities: Lecture

Review of Proffit and Graber Textbooks provides the basis of knowledge for 1st year post graduate orthodontic students .The students work in a group discussion format facilitated by the orthodontic faculty. Topics to be covered include growth and development, orthodontic diagnosis, treatment planning, treatment techniques, and history of orthodontics.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHODONT 444A Basics of Cephalometric Analysis (1 Units) Fall

Instructor(s): Mona Bajestan, Renie Ikeda

Prerequisite(s): None

Restrictions: Enrolled in postgraduate orthodontic program

Activities: Lecture

This course introduces residents to the concept and use of computerized digital cephalometric programs in the diagnosis and treatment planning of patients. Residents will gain knowledge in cephalometric analysis on lateral cephalometric radiographs, panoramic radiographs, full mouth series (periapicals and bitewings), tomograms of the TMJ, and other relevant radiographs. Special emphasis is placed on treatment predictions to help determine treatment plan choice.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 444B Introduction to 3-D Imaging (1 Units) Fall

Instructor(s): Snehlata Oberoi
Prerequisite(s): None

Restrictions: Enrolled in postgraduate orthodontic program

Activities: Lecture

This course will focus on cone beam CT imaging and its applications in imaging impacted teeth, size of the airway, malocclusions, and temporomandibular joint disorders. Topics covered include: principles of modern CBCT technology and its usage, identification of radiographic anatomy, landmarks, and anomalies; how to perform a systematic review and interpretation of a CBCT scan; selection of the proper CBCT sections and views to address specific concerns; and risks of ionizing radiation.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 445 Facial Growth & Development (1 Units) Fall, Winter

Instructor(s): Kelly Giannetti

Prerequisite(s): In postgraduate orthodontic program

Restrictions: Enrolled in the postgraduate orthodontic or pediatric

dentistry programs

Activities: Lecture

This course will focus on craniofacial development as defined by cephalometric analysis of lateral and frontal headflims emphasizing how growth occurs

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 447A Fundamentals of Biomechanics (1 Units) Winter

Instructor(s): Christine Hong

Prerequisite(s): Enrolled in orthodontic postgraduate program

Restrictions: None.
Activities: Lecture

This course describes the basic physical properties of orthodontic wires. The process of selecting these wires is described using their unique characteristics as decision points. Using the concept of slot play and the characteristics of static beam theory, the process of selecting specific custom torque prescriptions for each tooth is described and utilized in the course. Force systems utilizing the center of resistance of teeth will be taught and described. This is Part 1 of a 2 part series.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## ORTHODONT 447B Clinical Applications of Biomechanics (1 Units) Spring

Instructor(s): Christine Hong

Prerequisite(s): Pass ORTHODONT 447A

Restrictions: None
Activities: Lecture

This is Part 2 of a 2-part series on biomechanics and biomaterials. Part 2 focuses on clinical applications of biomechanical principles.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 448 Orthodontic Journal Club and Literature Review (1 Units) Fall, Winter

Instructor(s): Christine Hong
Prerequisite(s): None

Restrictions: Student has to be enrolled into the postgraduate

orthodontic program

Activities: Lecture

Students will review pertinent literature related to orthodontics and related fields emphasizing papers important to developing the modern concepts of orthodontic treatment.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# ORTHODONT 449 Advanced Orthodontic Diagnosis and Treatment Planning (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Christine Hong
Prerequisite(s): None

Restrictions: Enrollment in the postgraduate orthodontic program

Activities: Lecture

This course focuses on the how to diagnose and treatment plan complex and difficult orthodontic cases. Advanced diagnostic and treatment planning techniques will be demonstrated in detail. Case presentations by faculty and students will be used to demonstrate the techniques. Multiple treatment options for the same case will be discussed.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 450 Treatment in Progress Seminar (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Mona Bajestan, Christine Hong

Prerequisite(s): NONE.

Restrictions: Enrolled in 1st, 2nd, or 3rd year of postdoctoral orthodontic

program or consent of instructor

Activities: Seminar

This seminar series is composed primarily of in-progress or infrequently completed case reports. Students prepare case presentations on a rotating basis in audiovisual format, providing an analysis of the diagnosis, treatment planning and evaluation of growth and developmental changes. The purpose of the course is to develop a critical analytical approach to treatment and ability to propose treatment corrections when warranted to achieve desirable outcomes.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHODONT 452 Principles of Orthodontic Finishing (1 Units) Fall, Spring

Instructor(s): Christine Hong

Prerequisite(s): Enrollment in postgraduate orthodontics

Restrictions: None
Activities: Lecture

The course demonstrates the clinical principals of finishing orthodontic cases to an excellent occlusion and functional result. The course will focus on quality finishing of edgewise orthodontic cases, is a process that begins with placement of the braces, therefore "Begin With End In Mind", and runs through placement of the retention devices.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### ORTHODONT 453 Fundamentals of Clear Aligner Therapy (1 Units) Fall, Winter, Spring

Instructor(s): Robert Lee

Prerequisite(s): Enrolled in postgraduate orthodontics

Restrictions: None
Activities: Lecture

This course will concentrate on the fundamentals of clear aligner therapy. Students will learn different clear aligner techniques, protocols, biomechanics, philosophies, and clinical approaches.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### ORTHODONT 454 Emerging Orthodontic Products and Technologies (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Kjeld Aamodt
Prerequisite(s): None

Restrictions: Enrollment in the postgraduate orthodontic program

Activities: Lecture

This course is designed to introduce the student to new orthodontic products and emerging technologies that will be important in staying on the cutting edge in the orthodontic profession. Various techniques to evaluate the usefulness and effectiveness of new products will also be discussed.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 455 Orthodontic Practice Management and Transitions (1 Units) Fall, Winter, Spring, Summer

*Instructor(s):* David Johnson Prerequisite(s): None.

Restrictions: Enrolled in 3rd year of postdoctoral orthodontic program.

Activities: Lecture

This course intended to prepare the student to deal with the realities of managing an orthodontic practice. Thirty-six topics are discussed by the students and faculty. Several guest lecturers represent the different areas of practice administration. Multiple office visits are utilized to demonstrate actual practice situations in operation.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# ORTHODONT 456 Mixed Dentition Diagnosis and Treatment Planning (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Kelly Giannetti
Prerequisite(s): None

Restrictions: Have to be enrolled in postgraduate orthodontic program

Activities: Lecture

This course is designed to teach the fundamentals of diagnosis and treatment planning of basic to difficult comprehensive mixed dentition or early orthodontic treatment cases. Fixed and removable orthodontic appliances will be taught and demonstrated. Lectures will be combined with case presentations by faculty and residents.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 457 Orthodontics and Orthognathic Surgery (1.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Mona Bajestan
Prerequisite(s): None

Restrictions: Enrollment in postgraduate program in School of Dentistry.

Activities: Seminar, Project

In this didactic course, Orthodontic students and oral surgery residents learn to outline and evaluate alternative treatment possibilities for patients with facial and occlusal deformities that may require combined therapy. Review and presentation of the literature and of the records of previously treated patients is included. Expectations shift as students/residents advance.

School: Dentistry

**Department: Orofacial Sciences** 

Repeat course for credit? Yes

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No

### ORTHODONT 458 Orthodontics and Prosthodontics (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Arun Sharma
Prerequisite(s): None

Restrictions: Enrollment in postgraduate program in School of Dentisty.

Activities: Seminar

In this interdisciplinary seminar, residents present patient cases that involve 2 or more dental specialties. All residents participate in discussing cases and developing step-wise interdisciplinary treatment plans.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### ORTHODONT 459 Orthodontic and Periodontic Treatment (0.5 Units) Fall, Winter, Spring

Instructor(s): Christine Hong

Prerequisite(s): Enrollment in postgraduate orthodontics

Restrictions: None
Activities: Seminar

The interaction of orthodontics and periodontics will be discussed describing fundamental periodontal issues related to orthodontics and how the field of periodontics can interact with orthodontics.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHODONT 460 TMD and Orofacial Pain for Orthodontists (1 Units) Fall

Instructor(s): Jennifer Buchanan

Prerequisite(s): Enrolled in the postgraduate orthodontic program

Restrictions: none

Activities: Lecture

This course provides introduction to the types and etiology of temporomandibular disorders as well as how to screen and evaluate orthodontic patients for TMD.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 461 Orthodontic Research 1 (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Christine Hong

Prerequisite(s): Post graduate orthodontic first year student

Restrictions: Registered in the post graduate orthodontic program

Activities: Lecture

An introduction to the logic and methodology of clinical craniofacial research is presented and discussed with illustrations from the literature and from current research activities within the Orthodontic Division.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## ORTHODONT 462 Orthodontic Clinics (10 Units) Fall, Winter, Spring, Summer

Instructor(s): Christine Hong

Prerequisite(s): Enrollment in the first, second or third year postdoctoral

Orthodontic Program

Restrictions: None

Activities: Clinical

Diagnosis, treatment, and evaluation of clinical postdoctoral orthodontic problems as experienced in modern orthodontic practice. Students will treat patients with a broad spectrum of orthodontic problems. Students will work with other specialists in the management of orthodontic problems.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 463 American Board Orthodontics Written Exam Literature Review (1 Units) Fall, Winter

*Instructor(s):* Mona Bajestan Prerequisite(s): None.

Restrictions: Enrolled in 2nd or 3rd year of postgraduate orthodontic program or consent of instuctor.

Activities: Seminar

This course provides a comprehensive review of the literature in preparation for the American Board of Orthodontics (ABO) Part II examination. Students study the literature, participate in class discussions, and take ABO-style examinations at the end of each session.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHODONT 464 American Board of Orthodontics PH III Clinical Exam Review (1 Units) Winter, Spring

Instructor(s): Mona Bajestan
Prerequisite(s): None

Restrictions: Enrollment in the Postgraduate Orthodontic Program

Activities: Lecture

This course will be a comprehensive discussion of and teach the steps in completing the Phase III clinical exam for the American Board of Orthodontics certification. The course will include how to score the initial discrepancy index, how to score the final cast and radiographic evaluation, techniques for completing the case report, and how to prepare for the oral portion of the board exam, or BCOE.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHODONT 465 Surgical Orthodontics (1 Units) Fall, Winter

Instructor(s): Mona Bajestan
Prerequisite(s): N/A

Restrictions: Postgraduate students

Activities: Lecture

The course will review surgical and orthodontics principles for diagnosis, treatment and management of orthognathic surgery cases. Surgical component will describe the surgical principles guiding osteotomy design, level, and timing and the orthodontic component will delineate the basic principles underlying orthodontic treatment of orthognathic surgery cases. Instruction is primarily focused on students gaining knowledge of surgical/orthodontic principles and their application to clinical care\n

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### **Orthopaedic Surgery (ORTHO SURG)**

#### ORTHO SURG 130.01 CIEx - Orthopaedic Surgery/ Sports Medicine Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Drew Lansdown
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The goal of this 2 week sports medicine elective is to educate students in the comprehensive evaluation, pre-operative, surgical, and post-operative treatment as well as non-operative treatment of orthopedic injuries and related diseases.

School: Medicine

**Department: Orthopaedic Surgery** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 130.02 CIEx- Integrative Orthopaedic Surgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lan Chen

Prerequisite(s): 3rd year student in good academic standing

Restrictions: None
Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is a 2 week elective that introduces a case study of an orthopaedic surgery patient and follows their progress in healing and recovery. Students will spend time in outpatient clinic and the operating room with orthopaedic faculty.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### ORTHO SURG 130.05 CIEx-Orthopaedic Surgery Selective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder Prerequisite(s): None

Restrictions: 3rd Year Medical (MD) Students in good academic standing

Activities: Clinical

Two-week elective providing exposure to history and physical examination and treatment of patients on inpatient and outpatient services. Assistance in surgery and the use of treatment modalities is required. Clinical demonstrations, seminars and conferences form the basic for didactic instruction. Students will be assigned to services based on attending availability (and student preference if available).

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **ORTHO SURG 130.10 CIEx - Introduction to Orthopaedic** Hand Surgery - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Nathan Hoekzema

Prerequisite(s): Completion of Surgery Core Clerkship

Restrictions: None

Activities: Lecture, Clinical, Project

This two-week elective will provide exposure to history and physical taking skills and treatment of patients on inpatient and outpatient orthopaedic and hand surgery services. Assistance in surgery and the use of treatment modalities is required. Clinical demonstrations, seminars and conferences form the basis for didactic instruction.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **ORTHO SURG 140.01A Orthopaedic Surgery Clinical** Clerkship (5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder

Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture, Clinical

A 4-wk orthopedic surgery sub-internship. Students are assigned to an available subspecialty at Parnassus (inquire for subspecialty availability with course coordinator). Students receive instruction and experience in examination and treatment of patients with orthopedic conditions through clinical and operative exposure. Clinical demonstrations, seminars, and conferences form the basis for didactic instruction. A 10minute case presentation to faculty and residents is required in summer.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### ORTHO SURG 140.01B Orthopaedic Surgery Clinical Clerkship (5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder

Prerequisite(s): N/A

Restrictions: None

Activities: Lecture, Clinical

A 4-wk orthopedic surgery sub-internship. Students are assigned to one of two orthopedic services at ZSFG (Blue=trauma, arthroplasty; Gold=trauma, sports, foot, hand). Students receive instruction and experience in examination and treatment of patients with orthopedic conditions through clinical and operative exposure. Clinical demonstrations, seminars, and conferences form the basis for didactic instruction. A 10-minute case presentation to faculty and residents is required in summer.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# ORTHO SURG 140.01C Orthopaedic Surgery Clinical Clerkship - Pediatrics (5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Ishaan Swarup
Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture, Clinical

A 4-wk orthopedic surgery sub-internship. Students are assigned to pediatric orthopedic services at the Benioff Children's Hospital Oakland (inquire with course coordinator). Students receive instruction and experience in examination and treatment of patients with orthopedic conditions through clinical and operative exposure. Clinical demonstrations, seminars, & conferences form the basis for didactic instruction. A 10-minute case presentation to faculty and residents is required in summer.

School: Medicine

**Department: Orthopaedic Surgery** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 140.01D Orthopaedic Surgery Clinical Clerkship (5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder

Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture, Clinical

A 4-wk orthopedic surgery sub-internship. Students are assigned to orthopedic services at SFVA (arthroplasty, sports, trauma, foot & ankle, hand). Students receive instruction and experience in examination and treatment of patients with orthopedic conditions through clinical and operative exposure. Clinical demonstrations, seminars, and conferences form the basis for didactic instruction. A 10-minute case presentation to faculty and residents is required in summer.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 140.01E Orthopaedic Surgery Clinical Clerkship (5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder

Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture, Clinical

A 4-wk orthopedic surgery sub-internship. Students are assigned to an available subspecialty at Mission Bay/Orthopaedic Institute (inquire with course coordinator). Students receive instruction and experience in examination and treatment of patients with orthopedic conditions through clinical and operative exposure. Clinical demonstrations, seminars, and conferences form the basis for didactic instruction. A 10-minute case presentation to faculty and residents is required in summer.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder
Prerequisite(s): Surgery 110 and 111

Restrictions: Must complete 4 weeks\r\nMust be taught/instructed by orthopaedic surgery faculty attending\r\nMust apply through VSAS. Approval for the course is approved by the instructor of record

Activities: Clinical

Orthopaedic surgery clinical clerkships are offered in off-campus hospitals approved by the instructor of record for the course and the dean.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHO SURG 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder
Prerequisite(s): SURGERY 110

Restrictions: Must complete 4 weeks. Must be taught/instructed by orthopaedic surgery faculty attending. Must apply through VSAS. Approval for the course is approved by the instructor of record.

Activities: Clinical

Orthopaedic surgery clinical clerkships are offered in off-campus hospitals approved by the instructor of record for the course and the dean.

School: Medicine

**Department: Orthopaedic Surgery** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### ORTHO SURG 140.05 Orthopaedic Surgery Selective (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder, Ishaan Swarup
Prerequisite(s): 4th year in good academic standing

Restrictions: None

Activities: Lecture, Clinical

Two-week elective providing exposure to history and physical examination and treatment of patients on inpatient and outpatient services. Assistance in surgery and the use of treatment modalities is required. Clinical demonstrations, seminars and conferences form the basic for didactic instruction. Students will be assigned to services based on their preferences for sub-specialty and attending availability (contact course coordinator).

School: Medicine

**Department: Orthopaedic Surgery** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### ORTHO SURG 140.07 Advanced Orthopaedic Surgery - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Armen Martirosian Prerequisite(s): SURGERY 110

Restrictions: None

Activities: Lecture, Clinical, Independent Study

Students receive instruction and experience in the examination and treatment of patients on the inpatient and outpatient services, including the viewing and interpretation of radiographic studies.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# ORTHO SURG 140.08A Physical Medicine & Rehabilitation Clinical Clerkship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Lisa Pascual, Masato Nagao, Matthew Garibaldi, Sibel

Prerequisite(s): This rotation is ideally suited for 3rd and 4th year medical students with experience in direct patient care.

Restrictions: This rotation is ideally suited for 3rd and 4th year medical students with experience in direct patient care.

Activities: Lecture, Clinical

This elective offers students experience in the field of Physical Medicine and Rehabilitation (PM&R). Students will be exposed to patients with functional impairments due to a wide variety of illnesses and injuries in both the inpatient and outpatient settings. Students will become proficient in the neuromusculoskeletal examination and develop skills to lead an interdisciplinary team in the rehabilitation management of patients with disabling conditions.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# ORTHO SURG 140.08B Physical Medicine & Rehabilitation Clinical Elective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lisa Pascual, Masato Nagao, Matthew Garibaldi, Sibel

Prerequisite(s): This rotation is ideally suited for 3rd and 4th year medical students with experience in direct patient care.

Restrictions: None.

Activities: Lecture, Clinical

This elective offers students experience in the field of Physical Medicine and Rehabilitation (PM&R). Students will be exposed to patients with functional impairments due to a wide variety of illnesses and injuries in both the inpatient and outpatient settings. Students will become proficient in the neuromusculoskeletal examination and develop skills to lead an interdiscinary team in the rehabilitation management of patients with disabling conditions.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### ORTHO SURG 150.01 Research in Orthopaedic Surgery (3-18 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder

Prerequisite(s): Consent of faculty member in charge of students research project and approval of third-and fourth-year coordinator.SURGERY 110

Restrictions: Consent of faculty member in charge of students research project and approval of third- and fourth-year coordinator.

Activities: Fieldwork, Project, Lab science

Students continue previously initiated research projects under the guidance of faculty members.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### ORTHO SURG 160.01 Introduction to Clinical Orthopaedics & Anatomy (1 Units) Fall

Instructor(s): Nicole Schroeder

Prerequisite(s): None

Restrictions: None

Activities: Lecture

For MS1 & MS2 students. This course offers exposure to the anatomy lab and dedicated musculoskeletal anatomy dissections from orthopedic surgeons. Students who complete the course will be able to identify common musculoskeletal conditions of the hip, knee, shoulder/elbow, wrist/hand and spine; learn basic physical examination skills related to specific musculoskeletal conditions, and identify pertinent surgical anatomy related to musculoskeletal pathology and surgical treatment of disease.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# ORTHO SURG 160.03 An Interactive Intro to Health Technology and Innovation (1 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Aenor Sawyer Restrictions: None.

Activities: Lecture

This course organized by the Health Technology Interest Group will consist of 10 hour-long classes. Approximately half of the classes will feature speakers including students, faculty and entrepreneurs, from within and outside UCSF. The rest of the classes will be interactive skills-building sessions during which students will participate in using technology tools (eg. learn to build a mobile app using online resources). The goal is provide a forum for exposure to innovative ideas.

School: Medicine
Department: Anatomy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHO SURG 160.04 Orthopaedic Surgical Skills and OR Assist Elective (1 Units) Spring

Instructor(s): Nicole Schroeder
Prerequisite(s): None

Restrictions: None

Activities: Lecture, Clinical

Medical students will have the opportunity to learn about orthopaedic surgical skills and techniques — suturing, plating a long bone fracture, using a bone saw, etc. — and assist ortho faculty in the operating room and clinic. Students will attend two surgical skills labs where they will learn how to use orthopaedic surgical instruments and repair a long-bone fracture. Students will also be able to develop mentoring relationships with orthopaedic faculty through the OR Assist Mentor Match.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 160.05 Personal Finance for Medical Students, Part 1 (1 Units) Fall

Instructor(s): Derek Ward
Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course is the first part of a 3-part introduction to personal finance for medical professionals. Initial topics will include budgeting, loans and debt management, and the basics of investing. In this course, medical students will develop a framework to begin thinking about personal financial decisions and the unique financial positions of a career in medicine in order to establish good habits necessary for financial success as a physician.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Condition Convertions P(A)D (Does (N) + Does) as C (I) (Continue to the course).

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 160.06 Personal Finance for Medical Students, Part 2 (1 Units) Winter

Instructor(s): Derek Ward

Prerequisite(s): This is part of a 3 part series of Ortho Surg 160.05, 160.06 and 160.07 offered in Fall, Winter and Spring quarters.

Restrictions: Medical Students only

Activities: Lecture

This course is the second part of a 3-part introduction to personal finance for medical professionals. The elective will explore the particular tax situations that physicians face, insurance coverage (malpractice, disability, and life), and how physicians are compensated in various employment systems. Students will learn tax strategies unique to medical income groups, gain knowledge to make insurance decisions, and improve their understanding of reimbursement for their work.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 160.07 Personal Finance for Medical Students, Part 3 (1 Units) Winter

Instructor(s): Derek Ward

Prerequisite(s): The Money Doctor, Ortho Surg 160.05 (Part 1 of the

series)

Restrictions: None
Activities: Lecture

This course is the third part of a 3-part series intended as introduction to personal finance topics for medical professionals. In this consolidation students will learn about retirement planning and various account types as well as important financial milestones they may face as they pursue their financial goals. This course will prepare students to make more informed decisions at major financial landmarks such as home buying, caretaking of family, marriage, children, and retirement.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### ORTHO SURG 160.08 Introduction to Physical Medicine & Rehabilitation (PM&R) (1 Units) Fall

Instructor(s): Karina Del Rosario

Prerequisite(s): None Restrictions: None

Activities: Lecture

This elective offers an introduction to the interdisciplinary field of Physical Medicine and Rehabilitation (PM&R) to allow students to explore the field early in their professional education. Each week, a physician or other PM&R healthcare provider will present to students about their role within the field of PM&R and the patients they work with. Subspecialties such as Sports Medicine, Pediatrics, Neuromuscular Medicine, and many others will be introduced and explored.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

## ORTHO SURG 170.01 Orthopaedic Surgery Interest Group Elective (1 Units) Fall

Instructor(s): Nicole Schroeder

Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture

This course offers a series of lunchtime lectures delivered by various orthopaedic surgeons, including non-operative, from the department. Course goals are to introduce students to the field of Orthopaedic Surgery, learn about the career of an orthopaedic surgeon, and have time for questions & answers with each faculty attending.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### ORTHO SURG 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Nicole Schroeder

Prerequisite(s): Consent of instructor preceptor and approval of third- and

fourth-year coordinator.

Restrictions: Medical students only

Activities: Independent Study, Project

Focused study and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Orthopaedic Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### **Otolaryngology (OTOLARYN)**

### OTOLARYN 130.01 CIEx - ENT Elective - VAMC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Steven Pletcher
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. During this ENT elective, students will have opportunities to recognize common diagnoses in ENT practice, observe common procedures, and compose treatment plans for these common conditions.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## OTOLARYN 130.02 CIEx - Interprofessional ENT Inpatient Elective (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Roseanne Krauter Prerequisite(s): None

Restrictions: 3rd & 4th Year Medical (MD) Students

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This 2 week clinical immersive experience is focused on the interprofessional approach to voice, airway, and swallowing issues for adult inpatients.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## OTOLARYN 130.03 CIEx- ENT-Interprofessional Care of the Dizzy Patient (3 Units) Fall, Winter, Spring, Summer

 ${\it Instructor}(s)$ : Jeffrey Sharon, Roseanne Krauter

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Partner with learners from audiology, physical therapy, and nursing to care for patients with vestibular disorders in the outpatient setting. You will be working with multiple providers on an interprofessional team.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OTOLARYN 140.01M Advanced Otolaryngology Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Steven Pletcher, William Ryan Prerequisite(s): Surgery 110, Internal Medicine

Restrictions: None

Activities: Lecture, Clinical

This clerkship is in general otolaryngology and includes the diagnosis and treatment of common ear, nose, and throat problems. Both inpatient and outpatient experiences will be offered.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OTOLARYN 140.01P Advanced Otolaryngology Clerkship (3-6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Steven Pletcher, William Ryan Prerequisite(s): Surgery 110, Internal Medicine

Restrictions: None

Activities: Lecture, Clinical

A practical course in general otolaryngology including diagnosis and treatment of common ear, nose, and throat problems; both inpatient and outpatient experiences will be offered.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### OTOLARYN 140.01S Advanced Otolaryngology Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Patricia Loftus

Prerequisite(s): Surgery 110, Internal Medicine

Restrictions: None

Activities: Lecture, Clinical

A practical course in general otolaryngology including diagnosis and treatment of common ear, nose, and throat problems; both inpatient and outpatient experiences will be offered.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### OTOLARYN 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): William Ryan

Prerequisite(s): Medicine 131A-B-C and Surgery 110.

Restrictions: Fourth year medical students only

Activities: Clinical

Clinical clerkships in accredited off-campus hospitals approved by the chairperson of the department and the dean.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### OTOLARYN 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): William Ryan Prerequisite(s): SURGERY 110

Restrictions: Fourth-year medical students only.

Activities: Clinical

Clinical clerkships in accredited off-campus hospitals approved by the chairperson of the department and the dean.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

is this a web-based online course? NO

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### OTOLARYN 140.05 Otolaryngology Surgery Selective (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Chase Heaton

Prerequisite(s): 3rd and 4th year UCSF medical students only

Restrictions: None
Activities: Clinical

Two week elective providing exposure to the field of Otolaryngology-Head and Neck surgery. Goal of the course is to understand scope of practice of Otolaryngology, appropriateness of referral, recognize disease states of the head and neck, gain experience with history taking and physical exam of the head and neck. Assistance in surgery, attendance in clinic and exposure to different diagnostic and treatment modalities is required.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### OTOLARYN 150.01 Research in Otolaryngology (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Must be third- or fourth-year medical student.

Restrictions: None.

Activities: Fieldwork, Project, Lab science

Research project under the direction of a member (or members) of the Department of Otolaryngology.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OTOLARYN 170.01 Introduction to Otolaryngology (1 Units) Fall, Winter, Spring

Instructor(s): Patricia Loftus Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture

The course will introduce first and second year medical students to the field of Otolaryngology - Head and Neck Surgery. Through a series of ten lectures, students will hear from experienced clinicians about topics such as: pediatric otolaryngology; cochlear implants and hearing loss; thyroid cancer and surgery; salivary gland obstruction and surgery; health disparities in otolaryngology; minimally invasive skull base surgery; head and neck trauma; and other areas.

School: Medicine

**Department:** Otolaryngology - Head And Neck Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### OTOLARYN 198 Supervised Study (1-9 Units) Fall, Winter, Spring, Summer

Instructor(s): William Ryan

Prerequisite(s): Consent of instructor preceptor and approval of third- and

fourth-year coordinator.

Restrictions: Medical students only

Activities: Independent Study, Project

Focused study and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

Department: Otolaryngology - Head And Neck Surgery May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### Pathology (PATHOLOGY)

#### PATHOLOGY 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Raga Ramachandran

Prerequisite(s): Completion of core clerkships. Third or Fourth year

standing.

Restrictions: None

Activities: Clinical

Pathology 140.02A provides an elective opportunity for students to explore pathology clinical clerkships at non-UCSF institutions. Students will learn diagnostic pathology skills pertinent to their field of interest in general or sub-specialty fields of Anatomic Pathology.

School: Medicine **Department:** Pathology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PATHOLOGY 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Raga Ramachandran

Prerequisite(s): Completion of core clerkships. Third or Fourth year

standing.

Restrictions: None
Activities: Clinical

Pathology 140.02B provides an elective opportunity for students to explore pathology clinical clerkships at non-UCSF institutions. Students will learn diagnostic pathology skills pertinent to their field of interest in general or sub-specialty fields of Anatomic Pathology.

School: Medicine
Department: Pathology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PATHOLOGY 150.03 Surgical & Autopsy Pathology (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Raga Ramachandran

Prerequisite(s): Consent of faculty member in charge of students research project and approval of Dr. Raga Ramachandran elective director

Restrictions: Completion of 3rd year clerkships.

Activities: Seminar, Lab science

Under supervision & based on length of project, students will complete one autopsy and work-up surgical/cytology specimens. Student-oriented seminars will address subspecialties (e.g., dermatopath, neuropath, renal pathology) and basic science research in pathology. The rotation may be tailored to the special interests of particular students.

School: Medicine
Department: Pathology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PATHOLOGY 150.05 Research in Pathology (2-18 Units) Fall, Winter, Spring, Summer

Instructor(s): Raga Ramachandran

Prerequisite(s): Consent of faculty member in charge of students research project and approval of Raga Ramachandran director.

Restrictions: None

Activities: Independent Study

Student continue previously initiated research projects under the quidance of faculty members.

School: Medicine
Department: Pathology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### PATHOLOGY 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

Pathology 198 allows MS4s to design and pursue in-depth study or a project with faculty supervision within a specific area of interest in pathology. It reinforces self-directed study, an important component of the lifelong learning expected from a physician. Please see http://meded.ucsf.edu/mse/supervised-study-approval-form for additional background information, including the types of projects that are suitable for this course.

School: Medicine
Department: Pathology

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### **Patient-Centered Care (PT CN CARE)**

## PT CN CARE 101C Community Clinics Externship Course (8 Units) Fall, Winter, Spring, Summer

Instructor(s): Gurrinder Atwal

Prerequisite(s): PCC 130WI, PCC 130SP

Restrictions: 4th year dental student

Activities: Clinical

This course provides students an opportunity to advance their clinical practice ability while engaging an important group of patients in a community clinic. Students will be integrated into an oral health care delivery team in an underserved community, providing primary dental care to a diverse patient pool, including individuals who are healthy and sick, young and old.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 102A Clinical Fixed Prosthodontics and Implants I (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Natalie Hastings, Rishabh Acharya

Prerequisite(s): none

Restrictions: D3

Activities: Clinical

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of fixed prosthodontic care as part of the patient's overall comprehensive dental care. This includes onlays, crowns, bridges, and implant restorations.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

## PT CN CARE 102B Clinical Fixed Prosthodontics and Implants I (1.5 Units) Fall, Winter, Spring

Instructor(s): Natalie Hastings, Rishabh Acharya

Prerequisite(s): none

Restrictions: ID3

Activities: Clinical

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of fixed prosthodontic care as part of the patient's overall comprehensive dental care. This includes onlays, crowns, bridges, and implant restorations.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PT CN CARE 102CD Clinical Fixed Prosthondontics and Implants II (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Natalie Hastings, Rishabh Acharya

Prerequisite(s): none

Restrictions: D4 or ID4

Activities: Clinical

In this course, students will continue to apply the knowledge and skills gained in didactic, simulation, and early clinical courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of fixed prosthodontic care as part of the patient's overall comprehensive dental care. This includes onlays, crowns, bridges, and implant restorations.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PT CN CARE 103 Clinical Orthodontic Rotation (1 Units) Fall, Summer

Instructor(s): Snehlata Oberoi
Prerequisite(s): none

Restrictions: DDS 3rd year student

Activities: Seminar, Clinical, Independent Study

In this course, you will learn why patients seek orthodontic treatment, how to identify malocclusions, how to work up a patient for orthodontic treatment, basic treatment modalities, when to refer, and how orthodontics interfaces with general dentistry, as well as dental and medical specialties.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PT CN CARE 104A Management & Treatment of Periodontal Diseases I (1 Units) Fall, Winter, Spring, Summer

*Instructor(s)*: Yogalakshmi Rajendran, Guo-Hao Lin, Mark Ryder Prerequisite(s): none

Restrictions: DDS 3rd year student

Activities: Clinical, Workshop

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and non-surgical management of periodontal disease as part of the patient's overall comprehensive dental care.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unantinfactured

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# PT CN CARE 104B Management & Treatment of Periodontal Diseases I (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Yogalakshmi Rajendran, Guo-Hao Lin, Mark Ryder Prerequisite(s): None

Restrictions: Enrolled as ID3 students.

Activities: Lecture, Clinical, Workshop

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and non-surgical management of periodontal disease as part of the patient's overall comprehensive dental care.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

## PT CN CARE 104CD Management and Treatment of Periodontal Diseases II (0.5 Units) Fall, Winter, Spring,

*Instructor(s):* Yogalakshmi Rajendran, Guo-Hao Lin, Mark Ryder Prerequisite(s): Satisfactory academic standing and successful completion of PCC 138.01 or consent of instructor.

Restrictions: D4/ID4
Activities: Clinical

In this course, students will continue to apply the knowledge and skills gained in didactic, simulation, and early clinical courses to provide supervised direct patient care in the diagnosis, treatment planning, and non-surgical management of periodontal disease as part of the patient's overall comprehensive dental care.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PT CN CARE 105A Clinical Pediatric Dentistry Rotation I (2 Units) Winter, Spring

Instructor(s): Jungsoo Kim, Ray Stewart, Ling Zhan
Prerequisite(s): none

Restrictions: Restricted to IDP and DDS 3rd year students.

Activities: Clinical, Lab science

In this third-year course, students will take patient histories, determine if there is a need to modify treatment based on medical or behavioral history, formulate treatment plans, and perform basic dental treatment for pediatric patients including oral evaluations, dental prophylaxis, sealants, and restorative care. Some students may also perform pulp therapy, extractions, or space maintenance.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PT CN CARE 105CD Clinical Pediatric Dentistry Rotation II (2 Units) Fall, Summer

Instructor(s): Jungsoo Kim, Ray Stewart, Ling Zhan

Prerequisite(s): PCC 136AB

Restrictions: IDP and DDS 4th year students

Activities: Clinical

In this course, students will take patient histories, determine if there is a need to modify treatment based on medical or behavioral history, formulate treatment plans, and perform basic dental treatment for pediatric patients including oral evaluations, dental prophylaxis, sealants, and restorative care. Some students may also perform pulp therapy, extractions, or space maintenance. Students will also observe complex pediatric dental care for infants and behaviorally challenged children.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PT CN CARE 106AD Clinical Oral Medicine Rotation (1.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Kamal Al-Eryani, Sivappiriyai Veluppillai, Ava Wu Prerequisite(s): none\r\n

 $\label{thm:constraints} \textbf{Restrictions: Third year dental students and fourth year IDP dental}$ 

students.

Activities: Seminar, Clinical

Students shadow oral medicine faculty/residents/attendings to become familiar with the most common oral conditions, participating in patient intakes and workups and establishing differential diagnoses, working alongside postgraduate residents in Oral Medicine. They participate in various tests and procedures including clinical testing of microbial cultures, exfoliative cytology, and soft tissue biopsies.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

## PT CN CARE 107A Clinical Endodontics I (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Eric Wong Prerequisite(s): none

Restrictions: D3

Activities: Seminar, Clinical

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of non-surgical endodontic procedures as part of the patient's overall comprehensive dental care. This includes non-surgical root canal therapy and emergency management such as pulpectomies and pulpotomies.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

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Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PT CN CARE 107B Clinical Endodontics I (0.5 Units) Fall, Winter, Spring

Instructor(s): Eric Wong
Prerequisite(s): none

Restrictions: ID3
Activities: Clinical

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of non-surgical endodontic procedures as part of the patient's overall comprehensive dental care. This includes non-surgical root canal therapy and emergency management such as pulpectomies and pulpotomies.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PT CN CARE 107CD Clinical Endodontics II (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Eric Wong
Prerequisite(s): none

Restrictions: D4/ID4

Activities: Clinical

In this course, students will continue to apply the knowledge and skills gained in didactic, simulation, and early clinical courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of non-surgical endodontic procedures as part of the patient's overall comprehensive dental care. This includes non-surgical root canal therapy and emergency management such as pulpectomies and pulpotomies.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PT CN CARE 108A Clinical Removable Prosthodontics I (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Rishabh Acharya
Prerequisite(s): none

Restrictions: D3

Activities: Clinical

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of removable prosthodontic care as part of the patient's overall comprehensive dental care. This includes interim dentures, removable partial dentures, and complete dentures. \r\n

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PT CN CARE 108B Clinical Removable Prosthodontics I (0.5 Units) Fall, Winter, Spring

Instructor(s): Rishabh Acharya
Prerequisite(s): none

Restrictions: ID3

Activities: Clinical

In this course, students will apply the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of removable prosthodontic care as part of the patient's overall comprehensive dental care. This includes interim dentures, removable partial dentures, and complete dentures.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## PT CN CARE 108CD Clinical Removable Prosthodontics II (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Rishabh Acharya
Prerequisite(s): none

Restrictions: D4/ID4

Activities: Clinical

In this course, students will continue applying the knowledge and skills gained in didactic and simulation courses to provide supervised direct patient care in the diagnosis, treatment planning, and provision of removable prosthodontic care as part of the patient's overall comprehensive dental care. This includes interim dentures, removable partial dentures, and complete dentures.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### PT CN CARE 109A Clinical Oral Surgery Rotation I (2.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Jennifer Perkins
Prerequisite(s): none

Restrictions: Third year DDS student.

Activities: Seminar, Clinical, Workshop

A well-rounded general dentist has strong abilities to evaluate a patient's medical risk for elective and urgent dental care and identify higher-risk patients who require hospital based dental care or special needs. In this course, students participate in various clinical experiences to augment their understanding of hospital dentistry.

School: Dentistry

**Department:** Oral And Maxillofacial Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 109B Clinical Oral Surgery Rotation I (1 Units) Fall, Winter, Spring

Instructor(s): Jennifer Perkins
Prerequisite(s): none

Restrictions: Third year IDP Dentistry Student

Activities: Clinical

A well-rounded general dentist has strong abilities to evaluate a patient's medical risk for elective and urgent dental care and identify which oral surgery procedures are within the scope of a general dentist and which should be referred. In this course, students participate in various clinical experiences to augment their understanding of oral and maxillofacial surgery, hospital dentistry, and physical diagnosis, providing exposure to some of the hospital-based domains of dentistry.

School: Dentistry

**Department:** Oral And Maxillofacial Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PT CN CARE 109CD Clinical Oral Surgery Rotation II (4.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Jennifer Perkins
Prerequisite(s): PCC 109A or 109B

Restrictions: fourth year dental students

Activities: Seminar, Clinical

Building upon the foundation of knowledge and skills attained in PCC 109A, students will perform basic oral surgical procedures within the scope of a general dentist, and identify when to refer patients for specialty care. This course will also reinforce patient evaluation, medical risk assessment, diagnosis, treatment planning, and local anesthesia technique.

School: Dentistry

**Department: Oral And Maxillofacial Surgery** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PT CN CARE 111 Principles of Interprofessional Practice I (0.5 Units) Fall, Winter, Spring

Instructor(s): Hebert Chan Ching

Prerequisite(s): none

Restrictions: D1

Activities: Project, Web work, Workshop

Contemporary health care involves teams to provide care to patients with a multitude of complex and chronic medical conditions. This course provides students an opportunity to learn about the roles of various members of the health care team, and how to effectively work in teams with members from other health professions. Specifically, this course includes the first three modules of the Core Principles of Interprofessional Practice for D1 students.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 112 Principles of Interprofessional Practice II (0.5 Units) Fall, Spring

Instructor(s): Hebert Chan Ching

Prerequisite(s): none

Restrictions: D2 and D3

Activities: Clinical, Project, Web work, Workshop

This course provides students an opportunity to continue learning about the roles of various members of the health care team, and how to effectively work in teams with members from other health professions. Specifically, this course includes the last two modules of the Core Principles of Interprofessional Practice and also the Interprofessional Standardized Patient Exercise.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 113 Principles of Interprofessional Practice I (0.5 Units) Fall, Winter, Spring

Instructor(s): Hebert Chan Ching

Prerequisite(s): none

Restrictions: ID3

Activities: Project, Web work, Workshop

Contemporary health care involves teams to provide care to patients with a multitude of complex and chronic medical conditions. This course provides students an opportunity to learn about the roles of various members of the health care team, and how to effectively work in teams with members from other health professions. Specifically, this course includes the first three modules of the Core Principles of Interprofessional Practice for ID3 students.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 114 Principles of Interprofessional Practice II (0.5 Units) Fall, Spring

Instructor(s): Hebert Chan Ching

Prerequisite(s): none

Restrictions: IDP4 student

Activities: Clinical, Project, Web work, Workshop

This course provides students an opportunity to continue learning about the roles of various members of the health care team, and how to effectively work in teams with members from other health professions. Specifically, this course includes the last two modules of the Core Principles of Interprofessional Practice and also the Interprofessional Standardized Patient Exercise.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No

Repeat course for credit? No

#### PT CN CARE 117 Introduction to Comprehensive Care I (2 Units) Fall

Instructor(s): William Miller
Prerequisite(s): none

Restrictions: D1 DDS Student

Activities: Lecture, Seminar, Clinical

In this course, you will learn about infection control, history-taking, prescribing and interpreting radiographs, and developing rapport with your patients. Your learning in this course will be centered on developing the self-reflection skills necessary to practice a changing art and science through regular reflective assignments. These are critical foundational skills upon which students will build in the subsequent courses in the patient-centered care stream.

School: Dentistry

Unsatisfactory)

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 118 Introduction to Comprehensive Care II (2.5 Units) Winter

Instructor(s): William Miller
Prerequisite(s): none

Restrictions: D1 DDS Student

Activities: Lecture, Seminar, Clinical, Web work

Now that you have learned the basics of creating a safe, professional working environment you will build upon your skills by conducting various patient assessments. With a strong focus on prevention, you will perform an assessment of a classmate-patient's oral hygiene, caries risk, and gingival condition, and create an individualized home care regimen. This course will also continue to guide the development of self-reflection necessary to maintain skills throughout practice.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PT CN CARE 119 Introduction to Comprehensive Care III (2.5 Units) Spring

Instructor(s): William Miller Prerequisite(s): none

Restrictions: D1

Activities: Lecture, Clinical, Web work

The final course in the first-year PCC course provides further experience with electronic health records and tracking patient attainment of suggested self-care skills. Assessments learned prior will be employed in collaboration with an upperclassperson during assisting experiences with clinic patients. Students will also be asked to conduct a self-reflection exercise about their experiences and learning during the 1st year of dental school.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 128 Introduction to Comprehensive Adult Dentistry (7.5 Units) Spring

Instructor(s): Jennifer Perkins

Prerequisite(s): Successful completion of the first three quarters of the 2nd year curriculum.

Restrictions: ID2, D2

Activities: Clinical, Independent Study, Project, Workshop

In this course, students enter clinic and begin to provide comprehensive general dentistry and introductory periodontal care to adults with diverse ethnic, linguistic, and socioeconomic backgrounds. Students will work independently under faculty supervision, with mentorship from senior dental students and with support and guidance from their Group Practice Leader (GPL). Students will conduct oral evaluations, derive diagnoses, formulate comprehensive treatment plans, perform general dentistry.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### PT CN CARE 129 Introduction to Comprehensive Care IV (16.5 Units) Fall, Winter, Summer

Instructor(s): Joel White, Jennifer Perkins, Yogalakshmi Rajendran, Nejleh

Abed, Ramneek Rai Prerequisite(s): none Restrictions: ID2, D2

Activities: Lecture, Seminar, Clinical, Fieldwork, Web work

Students will continue developing their patient care skills, from the new patient visit to establishing continuing care, building on what was learned in the D1 year. This is a longitudinal course that spans three quarters. This is a clinical preparation course where students follow standards of care driven by the electronic health record workflows, provide direct patient care to their classmate patients and treat patients providing new patient visit, needed dental xrays, comprehensive and period

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PT CN CARE 130SP Spring Community-Based Learning Lectures (0.5 Units) Spring

Instructor(s): Gurrinder Atwal

Prerequisite(s): All first- and second-year coursework

Restrictions: Third-year dentistry students

Activities: Lecture

This course (PCC130SP) is the second of two lecture courses designed to foster an appreciation for community service and provide an introduction to the externship experience (PCC101C) with emphasis on the social determinants of health and cultural competency in providing dental care to a diverse patient pool.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PT CN CARE 130WI Winter Community-Based Learning Lectures (0.5 Units) Winter

Instructor(s): Gurrinder Atwal

Prerequisite(s): All first- and second-year coursework

Restrictions: Third-year dentistry students

Activities: Lecture

Through a variety of lectures and assignments, students prepare to provide oral health care at community health centers located in underserved communities. This course (PCC130WI) is the first of two lecture courses designed to foster an appreciation for community service and provide an introduction to the externship experience (PCC101C) with emphasis on the social determinants of health and cultural competency in providing dental care to a diverse patient pool.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### PT CN CARE 131 Foundations in General Dentistry I (4.5 Units) Summer

Instructor(s): Ana Casal, Jennifer Perkins, Eric Wong, Ling Zhan
Prerequisite(s): None

Restrictions: D3 and ID3 students

Activities: Lecture

In this course, you will continue to build upon foundations of knowledge directly related to the delivery of patient care. You will review core knowledge and learn more advanced concepts in diagnosing, treatment planning, the steps for clinical care, and managing complications in general dentistry, oral and maxillofacial surgery, endodontics, and pediatric dentistry.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PT CN CARE 132 Foundations in General Dentistry II (4.5 Units) Fall

Instructor(s): Ana Casal, Frederick (Fritz) Finzen, Yogalakshmi Rajendran, Ram Vaderhobli, Ray Stewart, Mark Dellinges

Prerequisite(s): none

Restrictions: D3 and ID3

Activities: Lecture

This is the second in a four-course third-year didactic series. In this course, you will continue to review core knowledge and learn more advanced concepts in diagnosing, treatment planning, the steps for clinical care, and managing complications in periodontics, removable and fixed prosthodontics, general dentistry, and pediatric dentistry. Additionally, you will continue to build upon your framework for managing difficult patients utilizing techniques from the behavioral sciences.\r\n

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PT CN CARE 133 Foundations in General Dentistry III (4.5 Units) Winter

Instructor(s): Ana Casal, Caroline Shiboski, Jennifer Perkins, Yogalakshmi

Rajendran

Prerequisite(s): none

Restrictions: D3 or ID3

Activities: Lecture

This is the third of a four-course third-year didactic series. In this course, you will review core knowledge and learn more advanced concepts in diagnosing, treatment planning, the steps for clinical care, and managing complications in oral medicine, oral and maxillofacial surgery, dental implants, periodontics, and oral pathology. You will also learn about managing difficult patients utilizing techniques from the behavioral sciences, including issues related to diversity and inclusion.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Repeat course for credit? No

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No

#### PT CN CARE 134 Foundations in General Dentistry IV (4.5 Units) Spring, Summer

Instructor(s): Ana Casal, Jennifer Perkins

Prerequisite(s): none

Restrictions: D3 or ID3

Activities: Lecture

This is the fourth and final course in the third-year didactic series. In this course, you will review core knowledge and learn more advanced concepts in diagnosing, treatment planning, the steps for clinical care, and managing complications in oral and maxillofacial surgery, endodontics, and orthodontics. You will also continue to learn about managing difficult patients, and engage in discussions about ethics, as related to the profession of dentistry.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PT CN CARE 139A Comprehensive Adult General Dentistry I (5.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Steven Lin, Grant Tsuji

Prerequisite(s): none

Restrictions: Third year dentistry student

Activities: Clinical, Independent Study, Project

With a solid foundation in the most common oral diseases and conditions of the oral cavity, the management of these conditions, the systemic conditions that may impact dental care, and technical skills, students are ready to begin patient care. \r\nln this course, students provide comprehensive general dentistry to adults with a diverse ethnic, linguistic, and socioeconomic backgrounds. Patients may be healthy or have complex chronic medical conditions. Students will conduct oral evaluations,

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PT CN CARE 140CD Clinical Skills Intensive (0.5-3 Units) Summer

Instructor(s): Jennifer Perkins Prerequisite(s): N/A

Restrictions: Fourth-year DDS students

Activities: Clinical

This intensive clinical skills course is designed to provide students with the opportunity to increase their clinical competency to a level appropriate for completion of the Doctor of Dental Surgery degree.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PT CN CARE 141 Advanced General Dentistry I: 21st Century Clinical Topics (1 Units) Summer

Instructor(s): Diana Nguyen
Prerequisite(s): none

Restrictions: 4th year DDS/IDP dentistry students

Activities: Lecture

This course is the first in a series of four final didactic courses in the DDS and IDP curriculum. It is lecture-based and includes the following topics: principles of continuous quality improvement, types of lasers in dentistry, and advanced treatment planning concepts.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PT CN CARE 142 Advanced General Dentistry II: The Business of Dentistry (1.5 Units) Fall

Instructor(s): Diana Nguyen Prerequisite(s): PCC 141

Restrictions: 4th year DDS/IDP dentistry students

Activities: Lecture, Independent Study, Project

This course is the second in a series of four final didactic courses in the DDS and IDP curriculum. It is lecture-based and includes the following topics: lasers in dentistry, advanced treatment planning concepts, continuous quality improvement, and the business of dentistry.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# PT CN CARE 143 Advanced General Dentistry III: Practice Mngmt & Acquisition (1 Units) Winter, Summer

Instructor(s): Diana Nguyen
Prerequisite(s): PCC 141, PCC 142

Restrictions: 4th year DDS/IDP dentistry students

Activities: Lecture, Project

This course is the third in a series of four final didactic courses in the DDS and IDP curriculum. It is lecture-based and includes the following topics: principles of continuous quality improvement, advanced treatment planning concepts, dental practice models and management, resume building, and anti-racism in dentistry.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

#### PT CN CARE 144 Adv Gen Dent IV: Integrated Clinical Case Pres & Cont QI (1 Units) Spring, Summer

Instructor(s): Diana Nguyen
Prerequisite(s): PCC 141, 142, 143

Restrictions: 4th year DDS/IDP dentistry students

Activities: Lecture, Project

This course is the fourth in a series of four final didactic courses in the DDS and IDP curriculum. It is project-based, and covers advanced treatment planning and quality improvement principles. Students will complete a group case presentation project and individual quality improvement project.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### PT CN CARE 149C Comprehensive Adult General Dentistry II (6.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Eva Bender
Prerequisite(s): none

Restrictions: Fourth year dental student

Activities: Clinical, Independent Study

This course is designed for D4 students to build upon foundational knowledge and skills to provide evidence-based comprehensive general dentistry to adults with a diverse ethnic, linguistic, and socioeconomic backgrounds. Patients may be healthy or have complex chronic medical conditions. Students will conduct oral evaluations, derive diagnoses, formulate comprehensive treatment plans, and perform general dentistry. Students will work independently, under supervision, and with teams.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

#### PT CN CARE 149D Comprehensive Adult General Dentistry II (8 Units) Fall, Winter, Spring, Summer

Instructor(s): Jyoti Singh, Lloyd Harris
Prerequisite(s): none

Restrictions: Fourth year IDP dental student

Activities: Clinical, Independent Study, Project

This course is for 4th yr advanced standing int dental students to build upon foundational knowledge and skills to provide evidence-based comprehensive general dentistry to adults with a diverse ethnic, linguistic, and socioeconomic backgrounds. Patients may be healthy or have complex chronic medical conditions. Students will conduct oral evaluations, derive diagnoses, formulate comp treatment plans, and perform general dentistry. Students will work independently, under supervision, & w/ teams.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

#### **Pediatric Dentistry (PED DENT)**

### PED DENT 181 Managing Child and Adolescent Behavior in the Dental Setting (1 Units) Spring

Instructor(s): Jean Calvo

Prerequisite(s): No prior skills needed

Restrictions: Only open to first and second year dental students

Activities: Lecture, Clinical, Discussion

This elective course is intended to provide dental students with an introductory understanding of skills and knowledge in varying specialized methods and approaches for effective behavior management for children and adolescents in the dental setting. As they shadow in the pediatric dental clinic, students will gain skills in patient communication for children at different developmental levels. Learners in this course will also review and understand the scientific evidence for behavior management

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PED DENT 195.05 Management and Care of Vulnerable and SHCNP patients (0.5 Units) Fall, Winter, Spring,

Instructor(s): Ling Zhan, Thomas Tanbonliong

Prerequisite(s): Completion of PCC 105A or PCC 105B.

Restrictions: Open to D4 Students only. Limited to a total of 8 students.

Activities: Lecture, Clinical

This elective aims to introduce dental students to providing care for patients with special health care needs (SHCN), medically complex patients and patients from underserved backgrounds. Didactic and clinical sessions on innovative care models such as a) medical dental integration, b) school-based care, c) teledentistry, d) desensitization clinics, and e) advanced behavior guidance will be covered.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PED DENT 406 Adv Pediatric Dentistry Seminar (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Ray Stewart
Prerequisite(s): None

Restrictions: Enrollment in postdoctoral pediatric dentistry programs or

consent of instructor.

Activities: Seminar, Project

This didactic course provides a foundation in evidence-based pediatric dentistry, with a focus on developing critical thinking skills and ability to apply knowledge to clinical care. Students learn advanced concepts in diagnosis, treatment planning and management including for patients requiring general anesthesia, conscious sedation and interdisciplinary care through faculty topic and case-based presentations and group discussions. Emphasis and expectations shift as students advance.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PED DENT 407 Literature Review (1.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Ray Stewart Prerequisite(s): None

Restrictions: Enrollment in postdoctoral pediatric dentistry programs or

consent of instructor.

Activities: Seminar, Project

Students will review the basic literature that is the foundation for the clinical practice of pediatric dentistry. The course will assist students in developing skills to evaluate literature and analyze research methods critically. Emphasis, topics and expectations shift as students advance.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No

Repeat course for credit? Yes

### PED DENT 409 Pediatric Dentistry Clinic (4-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Ray Stewart
Prerequisite(s): None

Restrictions: Enrollment in postdoctoral pediatric dentistry programs or

consent of instructor.

Activities: Clinical

This clinical course provides comprehensive experience in treating pediatric patients including those with special health care needs. Students learn to diagnose patients' dental needs, execute necessary diagnostics, design treatment approaches, utilize behavior management techniques, provide treatment in multiple areas (including preventive and restorative dentistry) and complete a preventative regimen suitable for patients' caries assessment. Expectations shift each quarter as learner advances.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PED DENT 409.10 Hospital Dental Practice (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Ling Zhan
Prerequisite(s): None

Restrictions: Enrollment in 2nd year or 3rd year of postgraduate pediatric

dentistry program.

Activities: Clinical

This clinical course provides in-depth clinical experience in the dental management of medically compromised and developmentally and physically disabled patients in both the outpatient and inpatient settings. Students function as a leading provider in the OR, providing pre and post assessment and complete a required number of OR cases. The course also includes exposure to the latest approaches in pediatric medicine as it relates to treatment of the medically complex patient.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

#### PED DENT 409.20 Conscious Sedation Clinic (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Ray Stewart
Prerequisite(s): None

Restrictions: Enrollment in 2nd year or 3rd year of pediatric dentistry

graduate program.

Activities: Seminar, Clinical

This clinical clerkship provides a comprehensive experience in evaluating and providing dental care for the anxious and behaviorally challenged pediatric dental patient using oral conscious and inhalation sedation. Residents are expected to apply their knowledge of oral sedation guidelines, various agents used, end to end procedure, and management of sedation related emergencies while providing clinical care under direct faculty supervision. Expectations shift as resident advances.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PED DENT 411 Intro Advanced Pediatric Dentistry (1.5 Units) Fall, Summer

Instructor(s): Thuan Le
Prerequisite(s): None.

Restrictions: Enrollment in 1st-year postdoctoral pediatric dentistry program or consent of instructor.

Activities: Seminar

This didactic course is designed to introduce students to advanced pediatric dentistry concepts and techniques. Lectures include a wide range of topics: treatment planning, behavior management, anesthesia/oral sedation, pulp therapies, dental materials, orthodontics and clinical procedures. Literature review sessions are included. The overall goal of the course is to prepare students for their advanced seminars and for rendering clinical treatment. Emphasis and topics vary as students advance.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? Yes

## PED DENT 415 Introduction to Hospital Dentistry (1 Units) Winter, Spring

Instructor(s): Ling Zhan
Prerequisite(s): None.

Restrictions: Enrollment in pediatric dentistry postgraduate program.

Activities: Seminar, Clinical

This clinically focused course provides an introduction to the practice of dentistry in the hospital setting. Students will learn fundamentals involved in providing consultative services, evaluation and provision of comprehensive dental care in the hospital inpatient and outpatient setting. In addition to starting inpatient consultations, they learn to assist the team in the OR. This course is designed to prepare the students for a more advanced role in hospital dentistry in their second year.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PED DENT 416 Orthodontics for Pediatric Dentists (1 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Hengsheng Lin, Thuan Le, Thomas Tanbonliong Prerequisite(s): None.

Restrictions: Ped Dental Post-Graduate students at UCSF.

Activities: Lecture, Clinical

This course is designed to teach pediatric dental postgraduates to understand growth and development, learn to diagnose and formulate proper treatment plans of primary and mixed dentition malocclusion, and apply this knowledge to clinical care for children and adolescents. Emphasis and expectations shift as students advance.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PED DENT 429 General Anesthesia Rotation (5 Units) Fall, Winter, Spring, Summer

Instructor(s): Ray Stewart
Prerequisite(s): None.

Restrictions: Enrollment in second-year of postgraduate pediatric

dentistry program or consent of instructor.

Activities: Clinical

This rotation is intended to prepare residents to participate, as members of the anesthesia team, in the delivery of general anesthesia to the infant, child and adolescent. Students learn the effects of different pharmacologic agents, airway management techniques including induction and intubation, and perform pre-operative risk assessment and post-operative assessment and perform general anesthesia activities under faculty supervision.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PED DENT 439 Pediatric Dentistry Clinical Preceptorship (2 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Ray Stewart Prerequisite(s): None.

Restrictions: Enrollment in 2nd year of postdoctoral pediatric dentistry

program or consent of instructor

Activities: Clinical

During this clerkship, the post-doctoral student gains practice in clinical teaching to third- and fourth-year dental students in the pre-doctoral pediatric dental clinic. The post-doctoral student works closely with the pre-doctoral clinical faculty in providing clinical supervision. The post-doctoral student is also expected to prepare some lectures, presentations, or seminars on selected topics to enhance his/her teaching skills.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PED DENT 440 Topics in Pediatric Dentistry for the DPH Postgraduate (1.5 Units) Winter, Spring

Instructor(s): Jean Calvo, Ray Stewart

Prerequisite(s): Completion of the following modules on the UC Learning Center. Dentistry Infection Control and Bloodborne Pathogens, Emergency Eyewash and Shower, The California Child Abuse and Neglect Reporting Act ("CANRA"), active Basic Life Support certificate.

Restrictions: Restricted to Dental Postgraduate students pursuing the Dental Public Health Certificate.\r\n

Activities: Lecture, Clinical

This elective course is intended to provide dental public health students with skills and knowledge on the provision of dental care to infants, children, and adolescents in a public health setting. Students will learn aspects of anticipatory guidance for various age groups, concepts in behavior management of children, evidenced based prevention and interim therapeutic restorative techniques for use in low resourced settings, and how to perform a pediatric oral health assessment.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### **Pediatrics (PEDIATRICS)**

### PEDIATRICS 110 Pediatric Core Clerkship (2-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Erica Lawson

Prerequisite(s): Third-year standing.

Restrictions: UCSF medical students only.

Activities: Seminar, Clinical

Students will develop a durable framework for evaluating the health of children in all settings: ambulatory (both wellness and common illnesses), inpatient and newborn nursery. Students are expected to be an integral part of each team and be responsible for evaluating pediatric patients - not only taking histories and performing physical exams, but challenging themselves to interpret these findings, create differential diagnoses, and formulate diagnostic and therapeutic plans.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

**Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

# PEDIATRICS 130.01 CIEx - Pediatric Intensive Care - Mission Bay (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Margaret Robinson

Prerequisite(s): None

Restrictions: Medical Students in Foundaitons 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students enrolled in this inpatient medicine immersion experience will be part of a pediatric intensive care team (day or night shifts) and will be have the opportunity to evaluate and treat a wide variety of medical and surgical patients.

**School**: Medicine **Department**: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PEDIATRICS 130.02 CIEx - Pediatric Gastroenterology - Mission Bay (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sofia Verstraete, Sara Buckelew

Prerequisite(s): None

Restrictions: Medical Students in F2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. The Pediatric Gastroenterology, Hepatology, and Nutrition Integrative Elective will maximize the students one on one time with experts in the field. Student will learn basic management of common GI diseases in a variety of clinical settings.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 130.03 CIEx - Pediatric Hematology/ Oncology (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Michelle Hermiston

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will attend oncology ward teaching sessions each morning, followed by oncology work rounds. Students will observe outpatient clinics in the afternoons including: oncology, hematology, neuro-oncology, radiation therapy, and survivorship.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# PEDIATRICS 130.04 CIEx - Intro to Clinical Peds Allergy & Immun - Mission Bay (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Morna Dorsey

Prerequisite(s): Successful completion of Pediatrics 110

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This rotation will include a mix of inpatient and outpatient experiences to provide students exposure to common, as well as some rare, allergy and immunology diseases in the pediatric patient population.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 130.13 CIEx - Peds Pulmonology - Fresno (3.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Paul Do

Prerequisite(s): All UCSF students must contact Linda Alvarez for enrollment (Armelinda.Alvarez@ucsf.edu) to initiate CIEx process at Fresno.

Restrictions: Must be a 3rd or 4th year medical student.

Activities: Lecture, Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provides medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will work directly with the attending physician in both the inpatient and outpatient setting to learn how to act as a consultant under the supervision of a pediatric pulmonologist to understand pediatric pulmonologic disorders.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 130.14 CIEx - Peds NICU - Fresno (4 Units) Fall, Winter, Spring, Summer

Instructor(s): Alok Kumar
Prerequisite(s): n/a

Restrictions: Must be a F2/3rd yr students.\r\nMust contact Linda Alvarez for enrollment (Armelinda.Alvarez@ucsf.edu) to initiate CIEx process at Fresno.

Activities: Lecture, Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provides medical students in Foundations 2 opportunities to broaden and enhance their professional development in healthcare settings different from those of their core clerkships. Students will spend two weeks working in an interdisciplinary team with residents, nurses, and pharmacists supervised by an attending neonatologist in the neonatal intensive care unit.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

## PEDIATRICS 130.15 CIEx - Pediatric Infectious Diseases - UCSF Oakland (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Alexander Newman

Prerequisite(s): None

Restrictions: Must be a student in Foundations 2 of the Curriculum.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provides medical students in Foundations 2 opportunities to broaden and enhance their professional development in healthcare settings different from those of their core clerkships. Students enrolled in this inpatient medicine immersion experience will be part of the pediatric infectious diseases consult team (weekday only) and will have the opportunity to evaluate and treat a wide variety of pediatric patients.

School: Medicine

Department: Pediatrics

enroll in this course? No Repeat course for credit? No

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 140.01B Ambulatory Pediatrics - San Francisco General Hospital (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None
Activities: Clinical

Students will function as interns in the busy Acute Care Clinic (6M) of the Children's Health Center at ZSFG. Students will gain skills in the assessment and management of a wide range of common acute pediatric complaints in a high risk patient population while working with an interdisciplinary care team. Students will also participate in all teaching conferences and present one case in a teaching conference for the rest of pediatric trainees.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.01C Inpatient Pediatrics Subinternship - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Pediatrics 110\r\nMedicine 110

Restrictions: UCSF students only

Activities: Lecture, Clinical

Students help manage patients with a wide variety of diagnoses, ranging from common general pediatric conditions to very rare and complicated multisystem disorders.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **PEDIATRICS 140.01D Emergency Department Pediatrics** Subinternship - UCSF Oakland (6 Units) Fall, Winter, **Spring, Summer**

Instructor(s): April Zaat

Prerequisite(s): Pediatrics 110, Medicine 110

Restrictions: None Activities: Clinical

We operate a busy Level 1 pediatric trauma emergency room, with a broad variety of diagnoses, ranging from common general pediatric conditions to very rare and complicated multisystem disorders. In the heart of our urban underserved community, the BCHO emergency room cares for a wide range of acuity from full traumas brought in by air transport to urgent care complaints. Every shift is different! You will work alongside our own residents as well as a team of visiting residents.

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.01 Intensive Care Nursery - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110, and consent of

instructor.

Restrictions: None Activities: Clinical

Neonatology is the specialty of newborn intensive care which provides oversight of medical and surgical care for sick babies in the setting of the neonatal intensive care unit (NICU), aka: intensive care nursery (ICN). This rotation is based entirely at the UCSF William H. Tooley Intensive Care Nursery, which is a 58 bed full service, level III/IV tertiary care referral center with over 1000 admissions per year. Many admissions are prenatally diagnosed and followed through the UCSF High Risk OB

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.01K Neonatology - San Francisco **General Hospital (6 Units) Fall, Winter, Spring,** Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None Activities: Clinical

Students develop skills in assessment of newborns in the setting of a high risk patient population. The experience involves care of patients ranging from the healthy term newborn to the infant requiring intensive supportive care. Students will play an active role in the diagnosis and management of these patients and be instructed in the recognition and treatment of common disorders affecting newborns.

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.01M Pediatric Critical Care - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None Activities: Clinical

Students follow selected patients in the Pediatric Intensive Care Unit and participate in patient presentations, management conferences, and teaching rounds. Emphasis is on cardiovascular and pulmonary physiology in management of critically ill pediatric patients. Students become familiar with relevant literature concerning problems of patients being followed.

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### PEDIATRICS 140.01N Advanced Inpatient Pediatrics - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Pediatrics 110, Medicine 110

Restrictions: None
Activities: Clinical

Clerkship provides exposure to typical pediatric inpatients at a quaternary care children's hospital in a setting where the student assumes primary responsibility for initial evaluations, diagnostic procedures and ongoing management of patients. Students are assigned patients and are expected to follow them from admission, including initial history, physical exam and work up through to discharge. Students should be fully integrated into the team.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

## PEDIATRICS 140.010 Pediatric Critical Care - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

The PICU is a 23-bed unit. Students will work with an intern, senior resident, fellow, and attending in managing a variety of critically ill infants and children, including patients with trauma, sepsis, respiratory failure, increased intracranial pressure, diabetic ketoacidosis, and cardiopulmonary arrest. There will be some opportunities to perform procedures.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Course Grading Convention. F/NF (Fass/Not Fass) of 3/0 (Satisfactory)

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Erica Lawson

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: 4th year medical students

Activities: Clinical

Clinical clerkship in off-campus hospitals approved by the chairperson of the department and the dean.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PEDIATRICS 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Erica Lawson

Prerequisite(s): MEDICINE 110, PEDIATRICS 110

Restrictions: 4th year medical students

Activities: Clinical

Clinical clerkship in off-campus hospitals approved by the chairperson of the department and the dean.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 140.03 Outpatient Pediatrics - Fresno (6-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Christian Faulkenberry-Miranda Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: Good Academic Standing

Activities: Clinical

Experience caring for sick and well children with 27,000 patient visits/ year. Preventive medicine and anticipatory guidance along with principles of growth and development. All activities will be closely supervised by either senior residents or faculty. Daily morning conferences, chart rounds, assigned readings.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PEDIATRICS 140.04 Pediatric Cardiology - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None
Activities: Clinical

This course will provide students with exposure to a full range of congenital and acquired heart disease from infants to young adults. The main objective of the rotation is to provide a basic understanding of pathophysiology, diagnosis, and management of common and critical types of congenital heart disease. The 4-week elective is divided between inpatient and outpatient experiences to provide a wide range of exposure.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Repeat course for credit? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No

#### PEDIATRICS 140.04B Pediatric Cardiology - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

Student will gain experience understanding the physiology of the heart and pathophysiology of congenital heart disease in an outpatient clinical setting. The student will be exposed to both non-invasive and invasive technology used to diagnose and treat congenital heart disease. Emphasis is placed on the auscultation of murmurs. In addition to clinics, the student will be able to attend pre-surgical and catheterization conferences in addition to regularly scheduled resident teaching conferences.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PEDIATRICS 140.13 Pediatric Endocrinology - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None
Activities: Clinical

Students participate in the clinical and investigative aspects of endocrine and metabolic problems in children, spending time on inpatient services, outpatient clinics and possibly the laboratory.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 140.15 Pediatric Oncology Subinternship - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: none
Activities: Clinical

Students participate in the management of INPATIENTS ONLY with solid tumors and leukemia, at time of initial diagnostic evaluation and ongoing therapy. There may be inpatient consultations and procedures (bone marrow aspiration and biopsies, lumbar puncture with intrathecal therapy). Ward rounds are held daily with the entire team.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.15B Pediatric Oncology - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

Medical students have the opportunity to participate in the care and management of complex hematology and oncology patients during this clerkship. Students may choose to divide their time between the busy inpatient service and a diverse outpatient clinic. Clinics are held daily and include: General Oncology, Neuro-Oncology, General Hematology, Thrombophilia, Thalassemia, Sickle Cell/Hemoglobin, and Hemophilia clinics.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.16 Pediatric Nephrology - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: none
Activities: Clinical

Students will be involved in key clinical activities and will learn about both chronic and acute renal issues in children such as nutritional problems (requiring TPN for instance), end stage renal disease and chronic renal failure (including post-transplant and dialysis patients).

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PEDIATRICS 140.17 Pediatric Genetics - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None
Activities: Clinical

Students will participate in the various outpatient clinics offered by the Division of Medical Genetics and Genomics at UCSF. When possible, they will also help with in-patient consults. The patient population seen by our clinicians includes infants, children and adults. The range of pathology includes but is not limited to congenital anomalies, biochemical disorders/inborn errors of metabolism, and childhood/adultonset diseases affecting a variety of organ systems.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# PEDIATRICS 140.18 Pediatric Hematology Consult Elective - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None.
Activities: Clinical

Student will function as an integral part of the Pediatric Hematology consult service at UCSF Children's Hospital. Student will acquire a body of knowledge relating to the diagnosis and treatment of various pediatric hematologic disorders and will gain expertise in communicating with children and families about these conditions. This is primarily an inpatient consult service, although there may be some outpatient consultations or clinic sessions.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.1JO Intensive Care Nursery - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

The NICU is a 39-bed intensive care nursery. Because there are no inborn infants at Childrens Hospital, all infants in the NICU are transported in from other hospitals. A large proportion of the NICU patients have surgical conditions, complex anomalies, or conditions requiring multiple sub-specialty consultation. Students work under the direct supervision of the attending physician and senior resident. Students are expected to attend all teaching conferences and clinical rounds.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.21 Pediatric Pulmonary - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110.

Restrictions: none

Activities: Clinical

Students participate in pulmonary consultations (initial and follow-up) in the acute care and intensive care units and in the general pulmonary and cystic fibrosis clinics.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.21A Pediatric Pulmonary - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

This rotation provides a unique opportunity for the advanced medical student to become familiar with the prevention, evaluation, and management of a broad spectrum of acute and chronic respiratory illnesses in children. Students will assume patient care responsibilities in the inpatient and outpatient settings under the direct supervision of the attending pediatric pulmonologist. The student is expected to attend the General Pulmonary, Cystic Fibrosis, and Sleep Disorders clinics.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PEDIATRICS 140.23 Pediatric Pulmonology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Paul Do

Prerequisite(s): Medicine 110, Pediatrics 110

Restrictions: none
Activities: Clinical

Students participate in pulmonary consultations (initial and follow-up) in the acute care and intensive care units and in the general pulmonary and cystic fibrosis clinics.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.24 Pediatric Infectious Disease - Fresno (3 Units) Fall, Summer

Instructor(s): Chokechai Rongkavilit Prerequisite(s): Medicine 110, Pediatrics 110

Restrictions: none
Activities: Clinical

Students learn the principles of diagnosis and the management of common infectious conditions; infectious complications in the immunocompromised host, neonatal infections, interpretation of microbiologic data, indications and interpretations of special studies, and utilization of the microbiology laboratory.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.30 Gastroenterology & Nutrition - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: none
Activities: Clinical

Students become familiar with the diagnosis and management of gastroenterological and hepatic diseases in infants and children. Experience is gained in the nutritional problems and therapy of pediatric patients.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.31 Inpatient Pediatric Clerkship - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Christian Faulkenberry-Miranda

Prerequisite(s): Must have completed and passed Medicine 110 and

Pediatrics 110

Restrictions: Must have completed and passed Medicine 110 and

Pediatrics 110

Activities: Lecture, Clinical

This course takes place at Community Regional Medical Center at UCSF Fresno on the Inpatient Pediatric Service. The patient population is primarily Medi-Cal patients, in a rural undeserved area. It provides the opportunity to develop and perfect skills in history-taking, physical examination, case write-ups, presentations, and procedures. Supervised problem-oriented learning/teaching environment fosters basic diagnostic and management skills.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PEDIATRICS 140.33 Pediatric Rheumatology - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None
Activities: Clinical

Students learn to evaluate and care for children with rheumatologic disorders. This course emphasizes performing the musculoskelal exam, understanding diagnostic testing in rheumatology, developing a differential diagnosis for children presenting with inflammatory symptoms and/or pain, and approach to the care of children with chronic disease. Students will also be exposed to ongoing clinical research studies in pediatric rheumatology

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PEDIATRICS 140.33B Pediatric Rheumatology - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

Students will have the opportunity to participate in the evaluation and management of patients with a variety of common and unusual rheumatologic conditions. Students will see patients in clinic and in the hospital with our team which may include residents, fellows and attendings. Clinics are held 4 days of the week in 2 locations and via telehealth and inpatient consults are done on an as needed basis.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.34 Pediatric Medical Genetics - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Cynthia Curry
Prerequisite(s): 4th-year standing

Restrictions: None

Activities: Lecture, Clinical

Experience will be gained in medical genetics, including dysmorphology, biomedical genetics and prenatal diagnosis. Rotation will provide general exposure to all these areas and give a basic understanding of methods used to reach specific genetic diagnoses and exact prenatal detection course for future pregnancies.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.35 Pediatric Infectious Disease - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Pediatrics 110, Medicine 110

Restrictions: None
Activities: Clinical

Students learn the principles of diagnosis and the management of common infectious conditions; infectious complications in the immunocompromised host; neonatal infections; interpretation of microbiological data; indications and interpretations of special studies; and utilization of the microbiology laboratory.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 140.35A Pediatric Infectious Disease -UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

Medical students have the opportunity to participate in the care and management of a variety of common and rare diagnoses during this clerkship. Students may choose to divide their time between the busy inpatient service and a diverse outpatient clinic. Clinics are held daily and include: General ID clinics, TB, and HIV clinics. Students will have primary responsibility caring for patients on the inpatient service under the supervision of residents, fellows and attendings.

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### PEDIATRICS 140.36 Allergy & Immunology - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None Activities: Clinical

Students learn to evaluate and care for children with primary immunodeficiency diseases and allergic diseases. This course emphasizes:\r\n--the ontogeny of the immune response as it relates to immunodeficiency and allergies\r\n--immunologic dysregulation involved in the pathogenesis of more common and rare disorders\r\n--laboratory studies required for diagnosis\r\n--the care of children with chronic (immunologic and allergic) diseases.

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.37 Adolescent Medicine - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110

Restrictions: None Activities: Clinical

This clinical rotation is on an outpatient/inpatient adolescent medicine service. Clinical experience includes service in a primary/subspecialty care adolescent outpatient clinic and on an adolescent consult and eating disorder inpatient medical service.

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.37B Adolescent Medicine - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Pediatrics 110\r\nMedicine 110

Restrictions: None

Activities: Lecture, Clinical

This is an outpatient rotation where students gain experience working with an urban teenage and young adult population. Students rotate through our main teen clinic and school-based clinics. Students will participate clinically and attend outpatient teaching conferences.

School: Medicine **Department:** Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 140.38 Pediatric Neurology - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

Under the supervision of faculty neurologist, students participate in both inpatient and outpatient clinical activities. Students will practice the neurologic exam for infants, children, and adolescents and learn about diseases that affect the nervous system. In addition to fulfilling clinical responsibilities, students are expected to attend all teaching conferences including those specific to the neurology division.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.400 Rehabilitation Medicine - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics110

Restrictions: none

Activities: Lecture, Clinical

Student will gain experience in inpatient and outpatient pediatric rehabilitation medicine. Students will assume the role as subintern, managing patients on the inpatient unit as well as participate in spasticity clinic, spina bifida clinic, and general rehabilitation clinic. Students may also have the opportunity to perform botox injections and learn baclofen pump management. Students will work closely with physical, occupational, and speech therapists and the rest of the rehabilitation team.

School: Medicine Department: Pediatrics

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.41 Pediatric Neonatology (NICU) - Fresno (6-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Krish Rajani, Elizabeth Black

Prerequisite(s): Completion of Medicine 110 and Pediatrics 110.

Restrictions: 4th year medical student.

Activities: Lecture, Clinical

Community Regional Medical Center serves a delivery service of approximately 8,000 deliveries per year. Students will spend the first week of their rotation on Newborn service, learning how to perform a basic newborn exam. Students will be integral members of the NICU team and will manage neonatal patients. This will include attending deliveries, participating in neonatal resuscitations, admitting newborns to the NICU, writing up H&Ps, writing orders and performing procedures.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course?  $\ensuremath{\mathsf{No}}$ 

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.410 Community Advocacy and Primary Care - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Pediatrics 110\r\nMedicine 110

Restrictions: none

Activities: Lecture, Clinical

Our outpatient clinics serve a diverse urban underserved community. Students are assigned to a general medical clinic, an urgent care clinic, and some specialties. Under the supervision of our ambulatory faculty, students have the opportunity to perfect history taking and physical diagnosis skills. They learn preventive medical and anticipatory guidance skills and principles of growth and development. Students visit nearby community organizations as part of the Community Advocacy Program (CAP).

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

# PEDIATRICS 140.43 Pediatric Gastroenterology & Nutrition - Fresno (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Michael Haight Prerequisite(s): Pediatrics 110.

Restrictions: None

Activities: Lecture, Clinical

In the office setting students are exposed to common pediatric conditions including chronic abdominal pain, gastroesophageal reflux, acute and chronic diarrhea, constipation, encopresis, failure to thrive, jaundice and nutrition. On the inpatient service, students will follow more complex patients.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 140.45 Pediatric Bone Marrow Transplant - Mission Bay (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Chelsea Garnett

Prerequisite(s): Medicine 110 and Pediatrics 110.

Restrictions: none
Activities: Clinical

Student will function as an integral part of the Bone Marrow Transplant (BMT) team. Student will acquire a body of knowledge specific to bone marrow transplantation, gain experience in doing common procedures and in communication with children and families about their condition.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PEDIATRICS 140.49 Pediatric Endocrinology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Renee Kinman

Prerequisite(s): Successful completion of Core rotations in Pediatrics.

Restrictions: 3rd and 4th year medical students.

Activities: Clinical

Provides comprehensive exposure to clinical pediatric endocrinology: presentation, diagnosis, & management of both common/uncommon endocrinologic problems. Specific topics include diabetes, hyperthyroidism, hypothyroidism, thyroid nodules, growth issues, precocious and delayed puberty, pituitary/hypothalamic abnormalities, hypocalcemia, hypoglycemia, vitamin D deficiency and/or rickets, adrenal abnormalities (such as congenital adrenal hyperplasia), Turner syndrome, and menstrual abnormal.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PEDIATRICS 140.49A Pediatric Endocrinology - UCSF Oakland (6 Units) Fall, Winter, Spring, Summer

Instructor(s): April Zaat

Prerequisite(s): Medicine 110\r\nPediatrics 110

Restrictions: none

Activities: Lecture, Clinical

Students participate in inpatient and outpatient clinical activities, learning about common endocrinologic diseases of childhood. In addition to inpatient and outpatient consultations, you will have the opportunity to participate in the multidisciplinary management of pediatric diabetes and other chronic disorders. Students are expected to attend all teaching conferences and clinical rounds.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 140.51A Pediatric Pulmonology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Paul Do, John Moua, Elizabeth Black

Prerequisite(s): Pediatrics 110

Restrictions: n/a
Activities: Clinical

Understand the development of airway anatomy and lungs in children, recognition of respiratory illness, acute and chronic, review basic pulmonary physiology and pathophysiology and understand basic treatment modalities and basic science background for each treatment.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 150.04 Research in Pediatrics (6-18 Units) Fall, Winter, Spring, Summer

Instructor(s): Erica Lawson

Prerequisite(s): Medicine 110 and Pediatrics 110. Consent of faculty member in charge of student's research project and approval of third- and fourth-year coordinator.

Restrictions: None

Activities: Independent Study

Student research projects under guidance of faculty members. Programs must be approved by instructors. Students may initiate or continue research programs under supervision of faculty members.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 170.01A Special Issues in Health Care (1-2 Units) Fall, Winter, Spring

Instructor(s): Erica Lawson
Prerequisite(s): None

Restrictions: None

Activities: Lecture

Lectures by pediatric specialists on important diseases treatments, and scientific advances in their fields. Optional site visits (3-4 hours each) to UCSF facilities (e.g. bone marrow transplant unit, NICU) to expose students to different facets of pediatric specialty care.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 170.01B Special Issues in Health Care (1-2 Units) Fall, Winter, Spring

Instructor(s): Erica Lawson
Prerequisite(s): None

Restrictions: None

Activities: Lecture

Lectures by pediatric specialists on important diseases, treatments, and scientific advances in their fields. Optional site visits (3-4 hours each) to UCSF facilities (e.g., bobe marrow transplant unit, NICU) to expose students to different facets of pediatric specialty care.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PEDIATRICS 170.01C Special Issues in Health Care (1-2 Units) Fall, Winter, Spring

Instructor(s): Erica Lawson
Prerequisite(s): None

Restrictions: None
Activities: Lecture

Lectures by pediatric specialists on important diseases, treatments, and scientific advances in their fields. Optional site visits (3-4 hours each) to UCSF facilities (e.g., bone marrow transplant unit, NICU) to expose students to different facets of pediatrics specialty care.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PEDIATRICS 180.01B Adolescent Development (2 Units) Fall

*Instructor(s):* Charles Irwin, Cherrie Boyer Prerequisite(s): No prerequisites are required.

Restrictions: None
Activities: Lecture

PEDIATRICS 180.01 is a two-quarter series (Pediatrics 1801.01B and Pediatrics 180.01C) focused on various topics in adolescent development and health. The topics covered in each quarter are interrelated, but each quarter is independently graded. The Fall quarter of Pediatrics 180.01 focuses on adolescent development and health, including growth and nutrition, normal and abnormal pubertal development, cognitive and psychosocial development, psychosexual development, and transgender health.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### PEDIATRICS 180.01C Adolescent Development (2 Units) Winter

*Instructor(s):* Charles Irwin, Cherrie Boyer Prerequisite(s): No prerequisites are required.

Restrictions: None
Activities: Lecture

PEDIATRICS 180.01 is a 2-quarter series (Pediatrics 1801.01B & Pediatrics 180.01C) focused on various topics in adolescent development and health. The topics covered in each quarter are interrelated, but each quarter is independently graded. The Winter quarter of Pediatrics 180.01 covers topics in adolescent health care (confidentiality, engaging adolescents/families), health outcomes/behaviors (mental health, eating disorders, substance use, reproductive health), and health policy principles.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PEDIATRICS 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Erica Lawson

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **Periodontics (PERIODONT)**

### PERIODONT 407.10 Periodontal Education and Communications Strategies (1 Units) Fall, Summer

Instructor(s): Robert Parr, Guo-Hao Lin

Prerequisite(s): None

Restrictions: First year PG Periodontology students.

Activities: Seminar

This didactic 2 quarter course will teach strategies to implement for patient communication, motivation, and compliance. Problems in interpersonal relationships with patients, employees, and referring dentists will be discussed with methods of successful resolution developed. Each student will be required to develop an office mission statement.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PERIODONT 411.01 Introduction to Postgraduate Periodontology, Part 1 (1.5 Units) Summer

*Instructor(s)*: Guo-Hao Lin, Gary Armitage, Robert Parr, Mark Ryder, Yogalakshmi Rajendran, Yu-Ting Yeh

December 1 it (a) None

Prerequisite(s): None.

Restrictions: Enrollment in the first year of the Postgraduate Program in

Periodontology

Activities: Lecture

In this Summer quarter introductory didactic course to the periodontal specialty, the postgraduate student will receive core information and training on the biological basis and clinical approaches for the diagnosis and treatment of periodontal diseases and for implant therapy prior to commencing further coursework and patient care. Instruction is primarily focused on students gaining knowledge of periodontal principles and their application to clinical care.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 411.02 Introduction to Advanced Periodontology, Part 2 (1.5 Units) Fall

Instructor(s): Guo-Hao Lin, Gary Armitage, Robert Parr, Mark Ryder,

Yogalakshmi Rajendran, Yu-Ting Yeh Prerequisite(s): Periodont 411.01

Restrictions: Enrollment in the first year of the periodontology

postgraduate program

Activities: Seminar

In this Fall Quarter introductory course, the postgraduate student receives instruction on core information for the biological basis of the diagnosis, treatment, and assessment of periodontal diseases and Implant Dentistry. The overall objective of the course is to build on information provided in the summer quarter to move student beyond introductory periodontal principles to learning basic procedures, surgical strategies and preparation of models and other data records for surgery planning.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 411.03 Introduction to Advanced Periodontology, Part 3 (1.5 Units) Winter

Instructor(s): Guo-Hao Lin, Gary Armitage, Robert Parr, Mark Ryder,

Yogalakshmi Rajendran, Yu-Ting Yeh

Prerequisite(s): Periodontology 411.01, Periodontology 411.02

Restrictions: Enrollment in the first year of the periodontology postgraduate program

Activities: Lecture

In this Winter Quarter introductory course, the postgraduate student continues to receive instruction on core information for the biological basis of the diagnosis, treatment, and assessment of periodontal diseases and Implant Dentistry. This course includes instruction on the theoretical aspect of different surgical and non surgical techniques.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### PERIODONT 413 Contemporary Periodontal Topics (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Guo-Hao Lin Prerequisite(s): N/A

Restrictions: Enrollment in the first year of the postgraduate

periodontology program.

Activities: Seminar

This year long didactic course complements the 411 series to move student beyond understanding introductory periodontal principles so they can start applying these principles to clinic care: using basic procedures, non-surgical strategies and preparing data records for treatment planning and therapeutic procedures based on relevant literature and clinical experience. Emphasis and expectations will shift each quarter as student advances in acquisition and demonstration of knowledge.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PERIODONT 414 Sedation in Dental Practice (4 Units) Summer

Instructor(s): Guo-Hao Lin

Prerequisite(s): DDS/DMD Degree, Residency Status

Restrictions: Residents

Activities: Lecture

This course provides 40 hours of didactic instruction in minimal and moderate sedation. It is designed in accordance with the American Dental Association's Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students. It will focus on preparation of sedation device and administration of controlled substances to achieve an ideal level of conscious sedation.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# PERIODONT 415 Sedation in Dental Practice: AAP, Grand Rounds, Emergency Prot (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Guo-Hao Lin

Prerequisite(s): DDS/DMD Degree, Residency Status

Restrictions: Residents

Activities: Lecture

This course provides 20 hours of didactic instruction in minimal and moderate sedation. It is designed in accordance with the American Dental Associations Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students. It will focus on identifying and managing various emergency scenarios and protecting patient safety.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 416 Sedation in Dental Practice: Clinical Care (2 Units) Fall, Winter, Spring, Summer

Instructor(s): Guo-Hao Lin

Prerequisite(s): 414, 415; DDS/DMD Degree, Residency Status, ACLS

certificate

Restrictions: Residents

Activities: Clinical

This repeatable course provides 60 hours of comprehensive clinical instruction in minimal and moderate sedation in the dental setting each year. It is designed in accordance with the American Dental Association's Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PERIODONT 419.01 Clinical Periodontics (6 Units) Summer

Instructor(s): Guo-Hao Lin
Prerequisite(s): None

Restrictions: Enrollment in 1st year of the postgraduate periodontology

program.

Activities: Clinical

This clinical clerkship provides a comprehensive experience in evaluation and provision of periodontal care using non surgical periodontal procedures. Residents are expected to apply their knowledge of basic procedures, non-surgical strategies and preparing data records for treatment planning and performing therapeutic procedures. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 419.02 Clinical Periodontics (6 Units) Fall

Instructor(s): Guo-Hao Lin

Prerequisite(s): PERIODONT 419.01

Restrictions: Enrollment in the 1st year of the postgraduate periodontology program.

Activities: Clinical

This clinical clerkship provides a comprehensive experience in evaluation and provision of periodontal care using non surgical periodontal procedures. Residents are expected to apply their knowledge of basic procedures, non-surgical strategies and preparing data records for treatment planning and performing therapeutic procedures. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 419.03 Clinical Periodontics (6 Units) Winter

Instructor(s): Guo-Hao Lin

Prerequisite(s): PERIODONT 419.02

Restrictions: Enrollment in the 1st year of the postgraduate

periodontology program.

Activities: Clinical

This clinical clerkship provides a comprehensive experience in evaluation and provision of periodontal care using non surgical periodontal procedures. Residents are expected to apply their knowledge of basic procedures, non-surgical strategies and preparing data records for treatment planning and performing therapeutic procedures. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PERIODONT 419.04 Clinical Periodontics (6 Units) Spring

Instructor(s): Guo-Hao Lin

Prerequisite(s): PERIODONT 419.03

Restrictions: Enrollment in 1st year of the postgraduate periodontology program.

Activities: Clinical

This clinical clerkship provides a comprehensive experience in evaluation and provision of periodontal care using non surgical periodontal procedures. Students are expected to apply their knowledge of basic procedures, non-surgical strategies and preparing data records for treatment planning and performing therapeutic procedures. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PERIODONT 423 Advanced Periodontal Topics (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Guo-Hao Lin Prerequisite(s): PERIODONT 413

Restrictions: Enrollment in the 2nd year of the periodontology

postgraduate program

Activities: Seminar

This year long didactic course covers advanced surgical topics for treatment planning and clinical care. Special emphasis is given to diagnosis, prognosis, etiology, treatment planning options and treatment rendered for complicated cases. Students are expected to present and defend their treatment plan and therapeutic procedures based on relevant literature and clinical experience. Emphasis and expectations shift each quarter as student advances in demonstration of knowledge and skill.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PERIODONT 429.01 Advanced Clinical Periodontics (6 Units) Summer

Instructor(s): Guo-Hao Lin

Prerequisite(s): Completion of Perio 419.04

Restrictions: Enrollment in second year of the postgraduate

periodontology program

Activities: Clinical

This clinic experience provides advanced training in providing clinic care to patients requiring periodontal surgical treatment. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including management of periodontal diseases and simple implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 429.02 Advanced Clinical Periodontics (6 Units) Fall

Instructor(s): Guo-Hao Lin

Prerequisite(s): PERIODONT 429.01

Restrictions: Enrollment in 2nd year of the postgraduate periodontology

program.

Activities: Clinical

This clinic experience provides advanced training in providing clinic care to patients requiring periodontal surgical treatment. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including management of periodontal diseases and simple implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PERIODONT 429.03 Advanced Clinical Periodontics (6 Units) Winter

Instructor(s): Guo-Hao Lin

Prerequisite(s): PERIODONT 429.02

Restrictions: Enrollment in the 2nd year of the postgraduate

periodontology program.

Activities: Clinical

This clinic experience provides advanced training in providing clinic care to patients requiring periodontal surgical treatment. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including management of periodontal diseases and simple implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## PERIODONT 429.04 Advanced Clinical Periodontics (6 Units) Spring

Instructor(s): Guo-Hao Lin

Prerequisite(s): PERIODONT 429.03

Restrictions: Enrollment in the 2nd year of the postgraduate

periodontology program

Activities: Clinical

This clinic experience provides advanced training in providing clinic care to patients requiring periodontal surgical treatment. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including management of periodontal diseases and simple implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PERIODONT 431 Periodontal Practice Management (1 Units) Winter, Spring

Instructor(s): Robert Parr, Guo-Hao Lin

Prerequisite(s): Enrollment in the third year of the postgraduate program in periodontology at the University of California, School of Dentistry

Restrictions: Successful completion of all didactic and clinical courses in periodontology in the first two years of the postgraduate program in periodontology. Enrollment restricted to 3rd year students in the postgraduate program in periodontology

Activities: Lecture

In this required 2 quarter didactic course for third year postgraduate students in the postgraduate program in periodontology, students learn about the principles of starting a periodontal practice including legal, financial, and regulatory issues.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PERIODONT 432 Periodontology Literature Review (2 Units) Fall, Winter, Spring

Instructor(s): Gary Armitage
Prerequisite(s): None.

Restrictions: Course only open to postgraduate students enrolled in the first or second year of the postgraduate program in Periodontology, School of Dentistry.

Activities: Seminar

Postgraduate students act as discussion group leaders for 60 assigned topics over 2 years (6 terms). Course has total of 12 units (2 hours a week; 20 hours/2 units per quarter). With faculty mentor guidance, students review the literature, develop a seminar outline/objectives, and lead group discussions. Emphasis is placed on developing the skills necessary for critical analysis of periodontal and associated biomedical literature.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### PERIODONT 433 Implant Treatment Planning and Surgery (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Yu-Ting Yeh, Guo-Hao Lin Prerequisite(s): PERIODONT 423

Restrictions: Enrollment in the 3rd year of the postgraduate

periodontology program

Activities: Seminar

This didactic year long course covers treatment planning and clinical care approaches for implants. Special emphasis is given to diagnosis, prognosis, etiology, treatment planning options and treatment rendered for complicated cases. Emphasis and expectations shift each quarter as student advances in demonstration of knowledge and skill. Students are expected to present and defend their treatment plan and therapeutic procedures based on relevant literature and clinical experience.

School: Dentistry

**Department: Orofacial Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## PERIODONT 439.01 Advanced Clinical Implantology (6 Units) Summer

Instructor(s): Guo-Hao Lin Prerequisite(s): PERIO 429.04

Restrictions: Enrollment in the third year of the postgraduate

periodontology program.

Activities: Clinical

This clinic experience provides advanced training to students in providing clinic care to patients requiring dental implant surgical treatments. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including soft tissue and hard tissue deficiencies and multiple/full-mouth implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 439.02 Advanced Clinical Implantology (6 Units) Fall

Instructor(s): Guo-Hao Lin Prerequisite(s): PERIO 439.01

Restrictions: Enrollment in the third year of the postgraduate

periodontology program.

Activities: Clinical

This clinic experience provides advanced training to students in providing clinic care to patients requiring dental implant surgical treatments. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including soft tissue and hard tissue deficiencies and multiple/full-mouth implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 439.03 Advanced Clinical Implantology (6 Units) Winter

Instructor(s): Guo-Hao Lin Prerequisite(s): PERIO 439.02

Restrictions: Enrollment in the 3rd year of the postgraduate

periodontology program\r\n

Activities: Clinical

This clinic experience provides advanced training to students in providing clinic care to patients requiring dental implant surgical treatments. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including soft tissue and hard tissue deficiencies and multiple/full-mouth implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PERIODONT 439.04 Advanced Clinical Implantology (6 Units) Spring

Instructor(s): Guo-Hao Lin Prerequisite(s): PERIO 439.03

Restrictions: Enrollment in the third year of the postgraduate

periodontology program.

Activities: Clinical

This clinic experience provides advanced training to students in providing clinic care to patients requiring dental implant surgical treatments. Students are expected to apply their knowledge of diagnostic modalities, surgical procedures, and strategies to perform surgical procedures including soft tissue and hard tissue deficiencies and multiple/full-mouth implant placement. Emphasis and expectations shift each quarter as student advances.

School: Dentistry

**Department:** Orofacial Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# Pharmaceutical Chemistry (PHARM CHEM)

#### PHARM CHEM 152 Drug Discovery & Design (3 Units) Spring

Instructor(s): Michelle Arkin

Prerequisite(s): Passing Chemistry 113.

Restrictions: None.
Activities: Lecture

Introduce the process and challenges in discovery of new therapeutics. Topics may include the causes of failure, target selection, methods of compound identification and optimization, intellectual property, and drug development. Class will include lectures, student-led discussion, and in-class workshops/homework. The final class will include student presentations. By the end of the course, students will understand the complex processes leading to the development of novel therapeutics.

School: Pharmacy

**Department: Pharmaceutical Chemistry** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHARM CHEM 157 Bioanalytical Theory & Technique (2 Units) Spring

Instructor(s): Stephen Kahl

Prerequisite(s): Spring quarter of third year School of Pharmacy standing or membership in approved graduate program or consent of instructor.

Restrictions: none

Activities: Lecture

Course covers the theoretical basis, experimental approach and practical aspects of the detection and quantification of drugs and their metabolites in biological samples. Topics include solubility groups, liquid-liquid extractions and sample preparation, spectrophotometric techniques, mass spectrometry, chromatographic theory and techniques, competitive protein binding assays, protein separation, and DNA analysis and sequencing techniques.

School: Pharmacy

**Department:** Pharmaceutical Chemistry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### Pharmacogenomics (PHARMGENOM)

### PHARMGENOM 206 Laboratory Rotation (2-8 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Lab science

A laboratory rotation course to familiarize new students in the Graduate Program in Pharmaceutical Sciences and Pharmacogenomics with various approaches to research in the pharmaceutical sciences and to gain exposure to potential dissertation research projects.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### PHARMGENOM 219 Special Topics in Pharm Sci and Pharmacogenomics (3 Units) Fall, Winter, Spring

Instructor(s): Staff
Prerequisite(s): None.

Restrictions: First year graduate students, other graduate and professional students with permission of instructor.

Activities: Lecture, Independent Study

Each course offering will focus on the literature of a current important area of Pharmaceutical Sciences and Pharmacogenomics. Students will be expected to read assigned papers critically before class and to present and discuss papers in class. Students will also be expected to write and present a brief research proposal based upon their reading. Topics in Pharmaceutical Sciences and Pharmacogenomics will be covered in individual course offerings.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

#### PHARMGENOM 220 Student Research Seminar (1 Units) Fall, Winter, Spring

Instructor(s): Rada Savic
Prerequisite(s): None

Restrictions: None
Activities: Seminar

This seminar will provide graduate students with a forum in which to develop seminar and poster presentation skills; critically organize and critically review scientific data; and analyze and question oral scientific presentations.

School: Graduate Division

Repeat course for credit? Yes

**Department:** Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

#### PHARMGENOM 223 Formal Seminar (1 Units) Fall, Winter, Spring

Instructor(s): Rada Savic Prerequisite(s): None

Restrictions: None

Activities: Lecture

This course is designed to expose students to advancements in PSPG & prepare students for their own oral presentations- at retreats, in other classes, lab presentations, etc. The students will see first hand and close up how professionals in their field organize & present their research. While they won't have oral presentations for this class, they will have oral presentations throughout the year that don't go on record because they are not related to a class (such as our retreat).

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

### PHARMGENOM 245A Basic Principles of Pharmaceutical Sciences (5 Units) Fall

Instructor(s): Sook Wah Yee
Prerequisite(s): Consent of instructor

Restrictions: None

Activities: Lecture, Seminar, Workshop

This is a five unit course. There are three major sections of the course, with evaluation on each section: Pharmacokinetic Principles; Metabolism and Transport; and Applied Pharmacokinetics. Overall for the quarter, the course will average three hours of didactic lectures and two 3-hour workshops/journal clubs. The course serves as a core course for graduate students in PSPG and is open to graduate students in all programs.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog **May the student choose the instructor for this course?** No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHARMGENOM 245B.1 Systems Pharmacology (2 Units) Winter

Instructor(s): Rada Savic

Prerequisite(s): No advanced training in mathematics or computational biology is required. Previous experience with computational methods for data analysis and visualization and a background in pharmacology would be beneficial but is not required.

Restrictions: None

Activities: Lecture, Workshop

An in-depth introduction to the use of systems approaches in pharmacology research. The course covers experimental and computational methods to understanding target identification and validation, drug biomarker discovery, drug repurposing drug development and identifying mechanisms of adverse drug reactions and multidrug resistance,. Emphasis is placed on computational modeling and quantitative data analysis. Students will work in teams to analyze complex biological data sets.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHARMGENOM 245B.2 Systems Pharmacology (2 Units) Winter

Instructor(s): Sourav Bandyopadhyay

Prerequisite(s): No advanced training in mathematics or computational biology is required. Previous experience with computational methods for data analysis and visualization and a background in pharmacology would be beneficial but is not required.

Restrictions: None

Activities: Lecture, Workshop

A series of lectures and hands-on workshops designed to teach students core principles in systems biology and pharmacogenomics approaches. Example topics include precision medicine, drug development, drug repurposing, big data analysis and biomarker discovery. The purpose is to acquaint students with emerging topics in the field and provide a firm basis in computational analysis and programming through hand on, project oriented workshops.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)
Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHARMGENOM 245C Principles of Pharmacogenomics (3 Units) Spring

Instructor(s): Nadav Ahituv

Prerequisite(s): Membership in the Pharmaceutical Sciences pathway, the Pharmaceutical Sciences and Pharmacogenomics graduate program, or consent of the instructor.

Restrictions: None

Activities: Lecture, Project, Lab skills

The course will provide an introduction to the application of genetic and genomic methods to the study of drug response and the genetic basis for variation in that response.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PHARMGENOM 250 Research (1-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: NA

Activities: Project

In this course, students will work together with a primary research advisor to select a research question and design a project workplan that will be carried out by the student. Through this activity, the student will gain experience in research strategy, learn techniques associated with modern biomedical research and practice how to interpret results. At the conclusion of the course, the student will present on their progress.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

# PHARMGENOM 260A Advanced Clinical Experience in Clin Pharm & Pharmacology (1-3 Units) Fall, Winter, Spring

Instructor(s): Leslie Floren

Prerequisite(s): Graduate students must be a California board licensed pharmacist and must have completed all required immunization and Basic Life Support (BLS) training at the time of elective start.

Restrictions: Graduate students must have this course approved by their graduate program director in order for this to count towards the program's elective requirement. Students are expected to take this course in the Fall, Winter and Spring quarters, in that order.

Activities: Clinical, Project

Elective graduate level course for clinically-trained, licensed Pharm.D. graduate students enrolled in a UCSF graduate program. Experience conducted in inpatient or outpatient setting. The student will be engaged in clinic service 0.5 -1 day per week over three sequential terms starting with Fall. The course utilizes experiential-based learning and encourages independent and inter-professional learning through integrating clinical practice with clinical teaching and/or research activities.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

# PHARMGENOM 260B Advanced Clinical Experience in Clin Pharm & Pharmacology (1-3 Units) Winter, Spring, Summer

Instructor(s): Leslie Floren

Prerequisite(s): Graduate students must be a CA board licensed pharmacist and must have completed all required immunization and Basic Life Support (BLS) training at the time of elective start.

Restrictions: Graduate students must have this course approved by their graduate program director in order for this to count towards the program's elective requirement. Students are expected to take this course in the Winter, Spring and Summer quarters, in that order.

Activities: Clinical, Project

An elective graduate level course for clinically-trained, licensed Pharm.D. graduate students enrolled in a UCSF graduate program. Experience conducted in inpatient or outpatient setting. The student will be engaged in clinic service 0.5 -1 day per week over three sequential terms starting with Winter. The course utilizes experiential-based learning and encourages independent and inter-professional learning through integrating clinical practice with clinical teaching and/or research activities.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

# PHARMGENOM 260C Advanced Clinical Experience in Clin Pharm & Pharmacology (1-3 Units) Fall, Spring, Summer

Instructor(s): Leslie Floren

Prerequisite(s): Graduate students must be a CA board licensed pharmacist and must have completed all required immunization and Basic Life Support (BLS) training at the time of elective start.

Restrictions: Graduate students must have this course approved by their graduate program director in order for this to count towards the program's elective requirement. Students are expected to take this course in the Spring, Summer and Fall quarters, in that order.

Activities: Clinical, Project

Elective graduate level course for clinically-trained, licensed Pharm.D. graduate students enrolled in a UCSF graduate program. Experience conducted in inpatient or outpatient setting. The student will be engaged in clinic service 0.5-1 day per week over three sequential terms starting with Spring. The course utilizes experiential-based learning and encourages independent and inter-professional learning through integrating clinical practice with clinical teaching and/or research activities.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

# PHARMGENOM 260D Advanced Experience in Clin Pharm & Pharmacology (1-3 Units) Fall, Winter, Summer

Instructor(s): Leslie Floren

Prerequisite(s): Graduate students must be a California board licensed pharmacist and must have completed all required immunization and Basic Life Support (BLS) training at the time of elective start.

Restrictions: Graduate students must have this course approved by their graduate program director in order for this to count towards the program's elective requirement. Students are expected to take this course in the Summer, Fall and Winter quarters, in that order.

Activities: Clinical, Project

Elective graduate level course for clinically-trained, licensed Pharm.D. graduate students enrolled in a UCSF graduate program. Experience conducted in inpatient or outpatient setting. The student will be engaged in clinic service 0.5 -1 day per week over three sequential terms starting with Summer. The course utilizes experiential-based learning and encourages independent and inter-professional learning through integrating clinical practice with clinical teaching and/or research activities.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/ Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? Yes

#### PHARMGENOM 260E Advanced Experience in Clin Pharm & Pharmacology (1-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Leslie Floren

Prerequisite(s): Graduate students must be a CA board licensed pharmacist and must have completed all required immunization and Basic Life Support (BLS) training at the time of elective start.

Restrictions: Graduate students must have this course approved by their graduate program director in order for this to count towards the program's elective requirement. Students must complete three quarters of either PSPG 260A, PSPG 260B, PSPG 260C, or PSPG 260D in order to enroll.

Activities: Clinical, Project

This is an elective graduate level course for clinically-trained, licensed Pharm.D. graduate students enrolled in a UCSF graduate program. Experience will be conducted in inpatient or outpatient setting. The student will be engaged in clinical service 0.5 -1 day per week. This optional course is taken after completing three quarters of either PSPG 260A, PSPG 260B, PSPG 260C, or PSPG 260D, if the student would like a full year of clinical service.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? Yes
Repeat course for credit? No

#### PHARMGENOM 266 Research Planning Conference (1 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instrucor.

Restrictions: NA
Activities: Lecture

Discussion and practice in research problem formulation and design selection. Core classes and small group sessions are organized around students' interests by faculty within the area of specialization.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### PHARMGENOM 271 Advanced Pharmacokinetics in Clinical Drug Development (4 Units) Winter

Instructor(s): Leslie Benet

Prerequisite(s): Consent of instructor

Restrictions: None

Activities: Lecture, Workshop

Although significant time will be devoted to theoretical aspects of the various topics, the focus will be on practical examples (real data) in how to design and interpret pharmacokinetic studies for use as a component of the regulatory drug approval process.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHARMGENOM 297 Pharmaceutical Sciences and Pharmacogenomics Journal Club (1 Units) Fall, Winter, Spring

Instructor(s): Lani Wu, Jim Wells

Prerequisite(s): None

Restrictions: None

Activities: Seminar

Critical review of published scientific papers from scholarly journals including comprehension, analysis and evaluation of published scientific data.

School: Graduate Division

**Department:** Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### PHARMGENOM 311 Curricular Development and Academic Leadership (0.5-4 Units) Fall, Winter, Spring

Instructor(s): Su Guo Prerequisite(s): none

Restrictions: PSPG students only

Activities: Seminar, Workshop, Lab skills, Discussion

The Curricular Development & Academic Leadership course will offer training and leadership to prepare graduate students in scientific leadership roles in the classroom and beyond. Students will have a hands-on approach to structuring and executing a curriculum. Students must submit an application prior to course enrollment.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### Pharmacology (PHARMACOL)

## PHARMACOL 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Approval of instructor

Restrictions: None

Activities: Independent Study

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

Department: Cellular And Molecular Pharmacology
May the student choose the instructor for this course? Yes
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PHARMACOL 274 Special Topics in Pharmacology (2.5 Units) Winter

Instructor(s): Staff
Prerequisite(s): none

Restrictions: none

Activities: Lecture, Project, Workshop

What is pharmacology? How are drugs discovered? How do they work? How is it determined whether a drug is safe and effective? In this course, we explore these questions, at molecular, cellular and systems levels, by looking at drugs that target key genes/pathways in several major organs/systems or diseases, including neurological, cardiovascular, endocrine, pulmonary, and infectious microbes/viruses.

School: Graduate Division

Department: Pharmaceutical Science And Pharmacogenomics Prog

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

# Pharmacy Integrated Sciences (PHARMIS)

#### PHARMIS 110 Foundations I (14.5 Units) Summer

Instructor(s): Joanne Chun, Katherine Yang

Prerequisite(s): none

Restrictions: restricted to 1st year Pharm.D. students

Activities: Lecture

Foundations I is an integrated course that provides foundational concepts which will serve as the basis for content that will be taught in all subsequent preclinical courses. The content of this course spans all levels of pharmacy practice including the therapeutic sciences, health care policy and management, and evidence-based health care. A key emphasis of this course is to lay the foundation for the development of compassionate critical thinkers and transformative leaders in healthcare.

School: Pharmacy

**Department:** Pharmaceutical Chemistry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHARMIS 111 Cardiovascular Science & Therapeutics (11.5 Units) Fall

Instructor(s): Jaekyu Shin
Prerequisite(s): None

Restrictions: This course is restricted to pharmacy students.

Activities: Lecture, Workshop

This Cardiovascular Integrated Theme course focuses on the medical treatment of 4 cardiovascular diseases (ischemic heart disease, dyslipidemia, heart failure, and arrhythmias) by integrating related basic and clinical sciences as well as behavioral/social/administrative sciences. It also explores knowledge gap in inquiry classes. The course concludes with a Synthesis week for reflection, exploration of careeroptions, and integration with the Foundations I course content.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### PHARMIS 112 Respiratory Science & Therapeutics (9.5 Units) Winter

Instructor(s): Leslie Floren
Prerequisite(s): None

Restrictions: Restricted to 1st year Pharm.D students

Activities: Lecture

This is an integrated course focused on pharmacologic/non-pharmacologic approaches to tobacco cessation, medical treatment of 5 common diseases, and conditions involving the respiratory system. This is done by integrating related basic, clinical, and behavioral/social/administrative sciences. It also explores knowledge gaps in inquiry classes. The course concludes with a Synthesis week for reflection, exploration of career-options, and integration with previous course content.

School: Pharmacy

**Department: Pharmaceutical Chemistry** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PHARMIS 113 Renal Science and Therapeutics (6 Units) Spring

Instructor(s): Igor Mitrovic
Prerequisite(s): None

Restrictions: PharmD 1st year students.

Activities: Lecture, Workshop

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatment of hypertension and chronic kidney disease by integrating related basic and clinical sciences as well as behavioral/social/administrative sciences. It also explores knowledge gaps through inquiry sessions. The course predominantly focuses on the practice of drug dosing adjustments needed in renal dysfunction and renal replacement therapy.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

### PHARMIS 114 Gastrointestinal Science and Therapeutics (8 Units) Spring

Instructor(s): Cathi Dennehy
Prerequisite(s): None

Restrictions: 1st year PharmD students.

Activities: Lecture

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatments of inflammatory bowel disease, irritable bowel syndrome, liver disease, and gastrointestinal reflux and peptic ulcer disease. Pharmaceutical self-care as well as the basics of nutrition are also introduced in this course. It also explores knowledge gaps through inquiry sessions.

School: Pharmacy

**Department: Pharmaceutical Chemistry** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHARMIS 115 Foundations II (3 Units) Summer

Instructor(s): Sharon Youmans

Prerequisite(s): None

Restrictions: Restricted to second year PharmD students

Activities: Lecture

Foundations II is an integrated course that provides foundational concepts which will serve as the basis for content that will be taught in all subsequent preclinical courses for the second year of the PharmD curriculum. The content of this course spans all levels of pharmacy practice including the therapeutic sciences, health care policy and management, and evidence-based health care.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHARMIS 116 Endocrine Science and Therapeutics (9.5 Units) Summer

Instructor(s): Candy Tsourounis
Prerequisite(s): None

Restrictions: Restricted to second year PharmD students

Activities: Lecture

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatments of diabetes, thyroid and adrenal disorders. Pharmaceutical self-care are also introduced in this course. It also explores knowledge gaps through inquiry sessions.

School: Pharmacy

**Department: Pharmaceutical Chemistry** 

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHARMIS 117 Neuroscience and Therapeutics (14.5 Units) Fall

Instructor(s): Stephanie Hsia, Rupa Tuan

Prerequisite(s): None

Restrictions: Limited to second year PharmD students

Activities: Lecture

This integrated theme course focuses on the pharmaceutical interventions available in the medical treatments of stroke, epilepsy, pain insomnia, anxiety disorders, major depressive disorder, schizophrenia, Alzheimers disease, Parkinsons disease, and alcohol/opioid/substance use disorders. It also explores knowledge gaps through inquiry sessions.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHARMIS 118 Oncology Science and Therapeutics (5.5 Units) Winter

Instructor(s): Janel Long-Boyle
Prerequisite(s): None

Restrictions: Limited to second year PharmD students

Activities: Lecture

This integrated theme course focuses on the role of the clinical pharmacist in the treatment of a patient requiring chemotherapy or immunotherapy as treatment (malignant and non-malignant disease). It also explores knowledge gaps through inquiry sessions.

School: Pharmacy

**Department: Pharmaceutical Chemistry** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### PHARMIS 119 Infectious Disease Science and Therapeutics (8 Units) Winter

Instructor(s): Conan MacDougall Prerequisite(s): None

Restrictions: Limited to second year PharmD students

Activities: Lecture

This integrated theme course focuses on antimicrobial regimen selection, antimicrobial stewardship, and the pharmaceutical interventions available in the treatment of respiratory tract infections, urinary tract Infections, skin and soft tissue infections, fungal infections, CNS infections, GI infections, sepsis and septic shock, HIV infection, viral hepatitis, viral infections, and tuberculosis. It also explores knowledge gaps through inquiry sessions.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

## PHARMIS 120A Discovery Groups Research Block (5 Units) Spring

Instructor(s): Fran Aweeka Prerequisite(s): None.

Restrictions: Restricted to second year PharmD students

Activities: Project

This course takes place during a concentrated 5 week period where students will focus on data collection and interpretation to address the scientific aims for their discovery projects. Projects are primarily done as team projects and students will have completed several 3-hour development sessions with their faculty advisors prior to this 5 week period. Weekly research progress meetings will be held either in person or online at the discretion of the faculty research advisor.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHARMIS 120B Intensive Discovery Research Project (12 Units) Spring

*Instructor(s):* Fran Aweeka Prerequisite(s): None.

Restrictions: Restricted to 2nd year PharmD students

Activities: Project

This course is taking place during a concentrated 11 week period where students will focus on data collection and interpretation to address the scientific aims for their Discovery Projects. Projects are done individually and students will have completed several 3-hour development sessions with their faculty advisors prior to this 11 week period.

School: Pharmacy

**Department:** Clinical Pharmacy

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHARMIS 121 Discovery Project Final Analysis and Completion (2 Units) Spring

*Instructor(s):* Fran Aweeka Prerequisite(s): None.

Restrictions: Restricted to 3rd year PharmD students

Activities: Project

This course provides students time to finalize data analysis for their Discovery Projects, write their manuscripts/reports & prepare their presentations. Students are responsible for working independently and/or with their Discovery Project groups to set up meetings with research advisors in order to complete work on their projects & final presentations. Students give oral presentations describing their Discovery Projects during the week after their last spring APPE rotation & before graduation.

School: Pharmacy

**Department: Clinical Pharmacy** 

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHARMIS 122 Inquiry Immersion 1 (3 Units) Winter

Instructor(s): Joanne Chun Prerequisite(s): none

Restrictions: 1st year pharmacy students

Activities: Lecture, Independent Study, Web work

This Inquiry Immersion course within the Bridges Curriculum is a twoweek block that includes foundational didactics, a selective mini-course, and scholarship skill-building.

School: Pharmacy

Department: Bioengineering And Therapeutic Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### Physical Therapy (PHYS THER)

#### PHYS THER 110 Ortho & Rehab Diag/Treatment (2 Units) Winter

Instructor(s): Daniel Keller

Prerequisite(s): Completion of PT 200, PT 201, PT 202 and concurrent enrollment in Pathology 135.01 or by consent of program director.

Restrictions: Open only to students enrolled in the UCSF/SFSU Graduate Program in Physical Therapy or consent of instructor.

Activities: Lecture

Course presents the diagnostic, medical, and surgical principles and techniques which guide decision making and management by the orthopedic surgeon. Contraindications, precautions, and prognosis are discussed to guide the decision making of the physical therapist.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 111 Neurology & Rehab Diagnosis and Treatment (2.5-3 Units) Fall

Instructor(s): Lucy Lotz

Prerequisite(s): Students must be enrolled in the entry-level DPT program.

Restrictions: None
Activities: Lecture

Course presents the diagnostic and medical principles which guide clinical decision making and management by the neurologist. Contraindications, precautions, and diagnosis of the different neurological diseases are discussed to guide decision making by the physical therapist.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 112A Motor Control Across the Lifespan: Motor Behavior (1.5 Units) Fall

Instructor(s): Erica Pitsch

Prerequisite(s): PHYS THER 203A, PHYS THER 203B, PHYS THER 200A,

PHYS THER 200B

Restrictions: First-year DPT students

Activities: Lecture

This required course for first-year DPT students covers motor learning and motor control concepts as applied to functional movement and balance in the normally developed adult, with an introduction into application to pathologic populations.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### PHYS THER 112B Motor Control Across the Lifespan: Pediatrics (1.5 Units) Spring

Instructor(s): Casey Nesbit
Prerequisite(s): PHYS THER 112A

Restrictions: DPT students in their second year.

Activities: Lecture

Normal human growth and development for pediatrics with an emphasis on the changes in physical, motor, sensory, cognitive, language, self-help, and psychosocial skills and their impact on functional movement. Implications for physical therapy assessments for infants, children, and adolescents with developmental problems.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 112C Motor Control Across the Lifespan: Geriatrics (1.5 Units) Winter

Instructor(s): Johanna Bergh

Prerequisite(s): PHYS THER 200A, PHYS THER 112A, PHYS THER 112B

Restrictions: Third-year students in the DPT program.

Activities: Lecture

This required course for DPT student will teach clinical reasoning and practical skills required for effective physical therapy evaluation and treatment of older adults. Students will learn about the biopsychosocial changes in the aging adult and their associated clinical consequences especially as applied to changes in functional mobility and balance. This will be accomplished through didactic lecture, small group problem-based learning, web-based learning modules, and laboratory activities.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 199 Independent Study (0.5-5 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Approval of the independent study advisor or by consent of program director.

Restrictions: Approval of the independent study advisor or by consent of program director.

Activities: Independent Study

Student participates in an independent study project under direction of a faculty member with the approval of the chairperson of the department.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### PHYS THER 199.01 Special Topics: Exploring a Research-Oriented PT Career (0.5 Units) Fall

Instructor(s): Casey Nesbit
Prerequisite(s): None

Restrictions: Restricted to DPT students

Activities: Lecture

It can be hard to know how to get started and translate DPT program research experience into a career. In this elective, we aim to overcome potential barriers that may prevent students from pursuing research-oriented careers as DPTs, including a lack of information; not identifying relevant research opportunities or experiences during or after PT school; and/or not knowing what a potential career trajectory or day-to-day schedule looks like as a PT researcher.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHYS THER 199.02 Special Topics: Health Equity and Humanitarianism (0.5 Units) Winter

Instructor(s): Casey Nesbit
Prerequisite(s): None

Restrictions: Restricted to third-year DPT students

Activities: Lecture, Project, Workshop

This course supports professional development in social responsibility by increasing an understanding of the role of physical therapy through the lens of health equity and humanitarianism. This course will prepare students for community engagement in settings serving vulnerable populations and displaced persons, providing disaster relief, developing physical therapy education, and delivering community-based rehabilitation.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PHYS THER 199.03 Special Topics: Community Clinic (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Alexander Dien
Prerequisite(s): None

Restrictions: DPT students

Activities: Clinical

This course supports students in their clinical and community development through participating in a community clinic to serve the needs of under-served patient populations. Access to health services in the San Francisco community is an important pillar in addressing the health disparities within our community. Coupled with the limited handson experiences outside of clinical affiliations offered to students, this elective seeks to address both needs.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PHYS THER 199.04A Special Topics: Pediatric PT at Alameda County CCS I (0.5 Units) Summer

Instructor(s): Casey Nesbit
Prerequisite(s): None

Restrictions: Third-year DPT students

Activities: Clinical

This course provides the opportunity to be immersed in the Alameda County California Children's Services program. Students will learn about various pediatric neurological and musculoskeletal diagnoses through research, staff discussion, and direct participation in client evaluation/treatment sessions. In addition, students will assess and treat clients (with the possibility of direct handling), observe specialty clinics, participate in staff in-services, and give a presentation to the CCS staff.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### PHYS THER 199.04B Special Topics: Pediatric PT at Alameda County CCS II (0.5 Units) Fall

Instructor(s): Casey Nesbit Prerequisite(s): PT 199.04A

Restrictions: Third-year DPT students

Activities: Clinical, Project

This course provides the opportunity to be immersed in the Alameda County California Children's Services program. Students will learn about various pediatric neurological and musculoskeletal diagnoses through research, staff discussion, and direct participation in client evaluation/treatment sessions. In addition, students will assess and treat clients (with the possibility of direct handling), observe specialty clinics, participate in staff in-services, and give a presentation to the CCS staff.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \$ 

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 199.05 Special Topics: Integrating Core, Hip, and Pelvic Floor (1 Units) Fall

Instructor(s): Casey Nesbit
Prerequisite(s): None

Restrictions: Third-year DPT students

Activities: Lecture, Seminar

This elective offers DPT students the opportunity to further study the pelvic floor and its interconnections with the spine and lower extremities. This is very important for understanding spine and lower extremity orthopedic conditions as well as how incontinence and pelvic pain are not always merely local problems.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 199.06 Special Topics: Physical Therapy in Adaptive Sports (1.5 Units) Fall

Instructor(s): Casey Nesbit
Prerequisite(s): None

Restrictions: Second-year and third-year DPT students

Activities: Lecture

DPT students and physical therapists must understand the relevance and value of adaptive sports participation as it relates to patient-centered goals. Through this elective, DPT students will have the opportunity to learn more about adaptive sports, gain experience working directly with athletes, and integrate their education through working with adaptive athletes from across the lifespan presenting with various orthopedic and/ or neurological conditions.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 199.07 Special Topics: Introduction to Pelvic Floor PT (1 Units) Summer

Instructor(s): Casey Nesbit
Prerequisite(s): None

Restrictions: Third-year DPT students

Activities: Lecture, Seminar, Project

This elective was designed to provide an entry level introduction to pelvic floor anatomy and skills necessary to evaluate and treat patients with vaginal anatomy and common pelvic floor diagnosis. Presentation of evidence-based evaluation and treatment techniques will be emphasized.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 199.08 Special Topics: Running Biomechanics (1 Units) Fall

Instructor(s): Richard Souza
Prerequisite(s): None

Restrictions: Restricted to DPT students

Activities: Lecture

Students have the opportunity to be part of an evidence-based approach to evaluating and treating running injuries through a comprehensive biomechanics evaluation. This course will consist of three parts: 1) observing UCSF RunSafe running assessments; 2) reading, analyzing and presenting recent literature in a journal club format; and 3) processing, analyzing and presenting video-based running biomechanics data.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 199.09 Special Topics: Certified Strength & Conditioning Specialist (1.5 Units) Summer

Instructor(s): Jordan LaBrec Prerequisite(s): None

Restrictions: Third-year DPT students

Activities: Lecture

This course will provide increased exposure to the principles of strength and conditioning to prepare students to treat the high-level athlete in the clinic. This course will also help them obtain the Certified Strength and Conditioning Specialist (CSCS) certification, a recognized credential in the performance and rehabilitation setting that signifies increased knowledge and advanced study in performance.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 199.10 Special Topics: Introduction to Ultrasound Anatomy (1 Units) Fall

Instructor(s): Madeleine Norris

Prerequisite(s): Successful completion of PT 200A, B, C

Restrictions: Second-year and third-year DPT students

Activities: Lecture

This course will provide a review of gross anatomy relevant to the rehab sciences, along with an introduction to ultrasound, and how it can be used as a diagnostic and procedural tool in a clinical setting.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 199.11 Anatomy Ambassadors (0.5 Units) Summer

Instructor(s): Jennifer Kinder, Amber Fitzsimmons

Prerequisite(s): PHYS THER 200A, PHYS THER 200B, PHYS THER 200C,

PHYS THER 205

Restrictions: Third-year DPT students

Activities: Workshop

This elective provides third-year DPT students the opportunity to develop practical teaching and tutoring skills in anatomy content under the supervision of the course director.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHYS THER 199.12 Peer-to-Peer (PTP) Weekly Champions (1 Units) Summer

Instructor(s): Amber Fitzsimmons

Prerequisite(s): PHYS THER 200A, PHYS THER 200B, PHYS THER 200C,

PHYS THER 205

Restrictions: Third-year DPT students

Activities: Seminar, Lab skills

This elective provides third-year DPT students the opportunity to develop practical teaching skills that combine observation, evaluation, and practice of teaching in anatomy under the supervision of the course director.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHYS THER 199.13 Peer-to-Peer (PTP) Program Leads (1.5 Units) Summer

Instructor(s): Amber Fitzsimmons

Prerequisite(s): PHYS THER 200A, PHYS THER 200B, PHYS THER 200C,

PHYS THER 205

Restrictions: Third-year DPT students

Activities: Seminar, Project, Workshop

This elective provides third-year DPT students the opportunity to develop leadership and practical teaching skills that combine observation, evaluation, and practice of teaching in anatomy under the supervision of the course director. Best practices in learner-centered teaching, curriculum models, and instructional design will be explored.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# PHYS THER 199.14 Special Topics: Group Exercise for Neurologic Populations (0.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Erica Pitsch, Lucy Lotz, Jordan LaBrec

Prerequisite(s): PT 710

Restrictions: Second-year and third-year DPT students

Activities: Clinical

The purpose of this course is to provide practical experience in developing and leading a group exercise class with an emphasis on balance and functional mobility.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 199.15 Special Topics: Physical Therapy in the ICU (0.5-1 Units) Fall, Winter, Spring, Summer

Instructor(s): Casey Nesbit
Prerequisite(s): None

Restrictions: Second-year and third-year DPT students

Activities: Clinical, Project

Students have the opportunity to be part of a continuing quality improvement initiative in the ICU at UCSF, as well as learn new practice patterns in Critical Care that UCSF is involved in teaching to Medical Centers across the United States. This course gives some exposure and opportunities to students to learn the practical aspects and challenges of working in the ICU.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### PHYS THER 200A Neuromusculoskeletal Anatomy I (4 Units) Summer

Instructor(s): Jennifer Kinder, Amber Fitzsimmons, Alison Scheid Prerequisite(s): Enrollment in the UCSF/SFSU Graduate Program in Physical Therapy. An upper division course in human anatomy or comparative anatomy.

Restrictions: None

Activities: Lecture

PT 200 A, B and C each focus on different anatomic regions. Dissection and functional anatomy of the neuromusculoskeletal system from a developmental and biomechanical perspective, with vascular and lymphatic systems related in a 3-dimensional perspective. Principles and relationships reinforced through lecture, dissection laboratories, studies of presections, and weekly integrative clinical seminars.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 200B Neuromusculoskeletal Anatomy II (0.5 Units) Fall

Instructor(s): Jennifer Kinder, Amber Fitzsimmons

Prerequisite(s): Enrollment in the UCSF/SFSU Graduate Program in Physical Therapy. An upper division course in human anatomy or

comparative anatomy.

Restrictions: None
Activities: Lecture

PT 200 A, B and C each focus on different anatomic regions. Dissection and functional anatomy of the neuromusculoskeletal system from a developmental and biomechanical perspective, with vascular and lymphatic systems related in a 3-dimensional perspective. Principles and relationships reinforced through lecture.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 200C Neuromusculoskeletal Anatomy III (0.5 Units) Winter

Instructor(s): Jennifer Kinder

Prerequisite(s): Upper division human anatomy and human physiology or consent of instructor.

Restrictions: None

Activities: Lecture, Lab science

PT 200 A, B and C each focus on different anatomic regions. Dissection and functional anatomy of the neuromusculoskeletal system from a developmental and biomechanical perspective, with vascular and lymphatic systems related in a 3-dimensional perspective. Principles and relationships reinforced through lecture.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 201 Physical Therapy Assessment: Principles and Practice (3 Units) Summer

Instructor(s): Sara Temple

Prerequisite(s): Enrollment in DPT program

Restrictions: Open only to students enrolled in the DPT program or by

consent or program director.

Activities: Lecture, Clinical

This course includes the principles of measurement, instrumentation, administration and interpretation of standardized and clinical evaluation techniques used in clinical physical therapy. Techniques include goniometric measurement of joint angles and manual muscle testing for strength. Course content includes principles of documentation, bed mobility, transfers, basic gait training, legal regulations and ethical practice. Course content is presented through lecture and laboratory activities.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 202 Therapeutic Modalities (1.5 Units) Fall

Instructor(s): Jordan LaBrec

Prerequisite(s): Admitted to the professional program in physical therapy and have taken coursework in exercise physiology, kinesiology and physics.

Restrictions: None.

Activities: Lecture

In lecture and lab settings, physiological, theoretical, and administrative principles are applied to the application of therapeutic modalities to prevent disability, maintain positive health, and restore function.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 204A Pathophysiology for Physical Therapists I (3 Units) Fall

Instructor(s): Jennifer Kinder, Andrew Lui, Victoria Cong Prerequisite(s): Students must possess foundational understanding of muscle, nerve, and joint structure and function, thoroughly grasp basic kinesiology concepts, and be able to demonstrate and apply basic anatomy and physiology principles. Students must have successfully completed courses in Neuromusculoskeletal Anatomy (PT200A).

Restrictions: Enrollment in the DPT program

Activities: Lecture

Pathophysiology for Physical Therapists is a two-part course, A & B (each covering different body systems), for a total of six quarter-units. Three units of the course are taught during the fall and three in the winter. Students will be introduced to the physiological and pathophysiological principles and mechanisms that underlie the normal and abnormal functions of the body and develop an understanding of disease pathophysiology. Didactic lectures are supplemented with small group learning.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 204B Pathophysiology for Physical Therapists II (3 Units) Winter

Instructor(s): Jennifer Kinder, Andrew Lui, Victoria Cong Prerequisite(s): Students must possess foundational understanding of muscle, nerve, and joint structure and function, thoroughly grasp basic kinesiology concepts, and be able to demonstrate and apply basic anatomy and physiology principles. Students must have successfully completed courses in Neuromusculoskeletal Anatomy (PT200A).

Restrictions: Enrollment in the DPT program

Activities: Lecture

Pathophysiology for Physical Therapists is a two-part course, A & B (each covering a different body system), for a total of six quarter-units. Three units of the course are taught during the fall and three in the winter. Students will be introduced to the physiological and pathophysiological principles and mechanisms that underlie the normal and abnormal functions of the body and develop an understanding of disease pathophysiology. Didactic lectures are supplemented with small group learning.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 205 Functional Anatomy Review (2 Units) Spring

Instructor(s): Jennifer Kinder Prerequisite(s): PT 200 or equivalent

Restrictions: None.

Activities: Lecture, Lab science

Students are expected to review Acland Videos prior to class and to work in small groups to complete the assigned dissection of the cadaver. Using the dissected cadavers (and prosected materials), the student is expected to relate the structures to clinical kinesiology, clinical courses, biomechanics, pathological states, and clinical education experiences.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 207 Medical Screening for Physical Therapists (4 Units) Winter

Instructor(s): Alison Scheid

Prerequisite(s): Enrolled in the DPT or DPTSc course or approval of instructor.

Restrictions: None.

Activities: Lecture, Project, Lab skills

This required course for DPT students will cover the basic techniques for medical history taking, physical examination for medical diagnoses that frequently lead to a physical therapy referral with special emphasis on recognizing the red flags that require a physician referral.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### PHYS THER 209A Evidence-Based Practice I: Intro to a Systematic Review (2 Units) Summer

Instructor(s): Casey Nesbit

Prerequisite(s): All DPT 1 and DPT 2 coursework

Restrictions: Third-year DPT students

Activities: Lecture

Introduction to the principles of evidence-based practice, critical review of evidence, systematic review, formulating a research question, and synthesizing data.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 209B Evidence-Based Practice II: Developing a Systematic Review (1 Units) Fall

Instructor(s): Casey Nesbit Prerequisite(s): PHYS THER 209A

Restrictions: Third-year DPT students

Activities: Lecture

Students will continue to build on systematic review skills learned in PT 209A, including establishing the gap in the literature, developing their research question, and developing the methods for their systematic review and data synthesis.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHYS THER 210 Radiology for Physical Therapists (2 Units) Spring

Instructor(s): Richard Souza

Prerequisite(s): Students must be enrolled in the UCSF/SFSU Program in Physical Therapy or the UCSF PhD in Rehabilitation Science.

Restrictions: Enrollment in DPT program.

Activities: Lecture

The purpose of this class is to develop skills in looking at musculoskeletal images. These skills are beneficial to the therapist to better understand the structures involved with any given pathology. In addition, these skills are necessary when patients bring their radiographs and images to their PT visit. Patients frequently want to be sure the therapist understands the severity of the musculoskeletal problem and considers this when designing intervention.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

#### PHYS THER 211 Pharmacology for Physical Therapists (2 Units) Fall

Instructor(s): Sharon Youmans

Prerequisite(s): Successful completion of first year in Physical Therapy

program.

Restrictions: Enrollment in DPT program

Activities: Lecture

This a survey course on pharmacological topics that are relevant to rehabilitation and physical tharapy and covers topics such as principles, indications and adverse reactions to medications commonly used to manage neuromusculoskeletal and cardiopulmonary conditions. Efffects of exercise on drug metabolism and drug interactions are also presented.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### PHYS THER 213 Neurological Pathokinesiology II (2 Units) Summer

Instructor(s): Erica Pitsch

Prerequisite(s): Enrolled in the DPT or DPTSc program or consent of

instructor.

Restrictions: None.

Activities: Lecture

The course will apply the scientific principles of neuroplasticity and motor control to the advanced assessment and management of movement dysfunction and promotion of wellness in people with neurological disorders.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 214 Administration and Organization in Physical Therapy (3 Units) Summer

Instructor(s): Sam Pak

 $\label{preconstruction} Prerequisite (s): Successful completion of first year in the Physical \\$ 

Therapy program.

Restrictions: Enrollment in DPT program.

Activities: Lecture

Specific administrative and planning skills required for physical therapy practice in various settings. Topics addressed include: quality assurance, documentation, personnel and fiscal management, planning, contracting, health services administration, health care team, professional and medical-legal issues.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHYS THER 215A Compassion, Accountability, Responsibility, & Excellence I (0.5 Units) Fall

Instructor(s): Kai Kennedy
Prerequisite(s): None

Restrictions: Must be enrolled in the Physical Therapy program.

This course includes content and assessments that encourage students to fully understand and consider the environmental and personal contextual factors influencing their role as health care providers. Specifically, students will be introduced to the concept of professionalism using a Professionalism Framework with five key domains, including: Accountability; Compassion and Humility; Professional Excellence; Social Responsibility; and Working Relationships.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHYS THER 215B Compassion, Accountability, Responsibility, & Excellence II (0.5 Units) Spring

Instructor(s): Kai Kennedy Prerequisite(s): PT 215A

Restrictions: Must be enrolled in the Physical Therapy program.

This course includes content and assessments that encourage students to fully understand and consider the environmental and personal contextual factors influencing their role as health care providers. Specifically, students will be introduced to the concept of professionalism using a Professionalism Framework with five key domains, including: Accountability; Compassion and Humility; Professional Excellence; Social Responsibility; and Working Relationships.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PHYS THER 216A Compassion, Accountability, Responsibility, & Excellence III (0.5 Units) Fall

Instructor(s): Kai Kennedy Prerequisite(s): PT 215A, PT 215B

Restrictions: Must be enrolled in DPT Program.

This course includes content and assessments that encourage students to fully understand and consider the environmental and personal contextual factors influencing their role as health care providers. Specifically, students will be introduced to the concept of professionalism using a Professionalism Framework with five key domains, including: Accountability; Compassion and Humility; Professional Excellence; Social Responsibility; and Working Relationships.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PHYS THER 216B Compassion, Accountability, Responsibility, & Excellence IV (0.5 Units) Spring

Instructor(s): Kai Kennedy

Prerequisite(s): PT 215A, PT 215B, PT 216A

Restrictions: Must be enrolled in the DPT Program.

This course develops content and assessments that encourage students to fully understand and consider the environmental and personal contextual factors influencing their role as health care providers. Specifically, students will continue practicing professionalism using a Professionalism Framework with five key domains, including: Accountability; Compassion and Humility; Professional Excellence; Social Responsibility; and Working Relationships.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 218A Therapeutic Exercise: Beginning Exercise Prescription (1.5 Units) Spring

Instructor(s): Andrew Lui

Prerequisite(s): Must be enrolled in the DPT program.

Restrictions: First-year DPT students.

Activities: Lecture, Web work

This is a required course for DPT students. Through independent assignments, lecture, in class discussion and demonstration, and laboratory activities, students will utilize their knowledge of anatomy, physiology and kinesiology and expand their clinical reasoning skills to design effective exercise programs for patient populations with varying diagnoses, impairments, and comorbidities.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 218B Therapeutic Exercise: Intermediate Exercise Prescription (1.5 Units) Summer

Instructor(s): Andrew Lui

Prerequisite(s): PT200ABC, PT706, PT201AB, KIN746, PT741/742/743,

PT720, PT710/11, PT218A

Restrictions: Third-year DPT students

Activities: Lecture

Through didactic lecture, review of current literature, ILMs, small group problem based learning, and lab activities, students will further their understanding of muscle structure/function and integrate principles of nerve, tendon, and muscle biology and kinesiology to design and modify evidence based exercise programs for populations with varying diagnoses, impairments, and comorbidities. Students will also learn teaching methods to maximize patient adherence to exercise programs.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## PHYS THER 218C Therapeutic Exercise: Advanced Prescription & Manual Therapy (1.5 Units) Fall

Instructor(s): Luc Fecteau, Andrew Lui, Arthur Long Prerequisite(s): PT 200ABC, PT 201AB, PT 706, KIN746, PT 731/742/743,

PT720, PT710/11, PT218AB

Restrictions: Third-year DPT students

Activities: Lecture

Students will further their understanding of muscle structure and function and integrate principles of nerve, tendon, and muscle biology and kinesiology to design and modify both evidence-based exercise programs and manual therapy interventions for basic case presentations. Students will also synthesize evaluation findings into a problembased intervention list using the movement analysis model to include therapeutic exercise and manual therapy in isolation and in combination.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 218D Therapeutic Exercise: Exercise for Special Populations (1.5 Units) Winter

Instructor(s): Luc Fecteau

Prerequisite(s): PT200ABC, PT 201AB, PT 706, KIN746, PT 731/742/743,

PT720, PT710/11, PT218ABC

Restrictions: Third-year DPT students

Activities: Lecture

Students will further their understanding of integrating advanced exercise prescription principles of nerve, tendon, and muscle biology/ kinesiology to design and modify evidence-based exercise programs for populations with varying diagnoses, impairments, comorbidities. They'll synthesize evaluation findings into a problem-based plan of care including therapeutic exercise and manual therapy. These concepts will be adapted to a variety of special populations in the physical therapy environment.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 219A Pain Science for the Physical Therapist I (1 Units) Spring

Instructor(s): Vincent Ann

Prerequisite(s): Admitted to the professional program in physical therapy and have successfully completed coursework in physiology and anatomy

Restrictions: Restricted to students in the DPT program.

Activities: Lecture

This is a required course for DPT students. Through didactic lectures, in-class discussions, and assigned reading, the students will apply their knowledge of anatomy, physiology, and therapeutic treatments while expanding their clinical reasoning skills to enable them to educate and discuss the science of nociception, persistent pain, and current scientific opinion on pain management.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 219B Pain Science for the Physical Therapist II (1 Units) Summer

Instructor(s): Vincent Ann

Prerequisite(s): PT 219A, Admitted to the professional program in physical therapy and have successfully completed coursework in physiology and anatomy

Restrictions: Restricted to students in the DPT program.

Activities: Lecture

This course is the 2nd of two courses in the PT 219 series, designed to fulfill the growing educational needs for pain science in health care. Through didactic lectures, in-class discussions, and assigned reading, the students will apply their knowledge of anatomy, physiology, and therapeutic treatments while expanding their clinical reasoning skills to enable them to educate and discuss the science of nociception, persistent pain, and current scientific opinion on pain management.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### PHYS THER 251A Research Design I: Introduction to Scientific Inquiry (3 Units) Summer

Instructor(s): Victor Cheuy

Prerequisite(s): Enrolled in Graduate Program in Physical Therapy or consent of instructor.

Restrictions: None.

Activities: Lecture

This course explores the underlying theoretical concepts that guide the design of clinical research studies. Students will be introduced to the scientific method and to a variety of research methods and designs. Students will 1) learn research designs that will be applicable to their future physical therapy practice, 2) develop a research question and design an appropriate study for that question, and 3) learn to critically appraise and become proficient consumers of research literature.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: Yes

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 251B Research Design II: Appraisal of Scientific Literature (1 Units) Fall

Instructor(s): Victor Cheuy

Prerequisite(s): Successful completion of PT 251A.

Restrictions: None.
Activities: Lecture

This course explores the underlying theoretical concepts that guide the design of clinical research studies. Students will be introduced to the scientific method and to a variety of research methods and designs. Students will 1) learn research designs that will be applicable to their future physical therapy practice, 2) develop a research question and design an appropriate study for that question, and 3) learn to critically appraise and become proficient consumers of research literature.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 400A Grand Rounds (1 Units) Fall, Winter, Spring

Instructor(s): Elise Armstrong

Prerequisite(s): Completion of physical therapy program courses, to date

Restrictions: Restricted to 1st Year students in the DPT program only.

Activities: Lecture

This course is designed to facilitate interdisciplinary communication and interaction between doctoral students in physical therapy and professionals in other health care disciplines and the larger community on topics of mutual interest, and to assist students in developing habits of community engagement and lifelong learning. Students are encouraged to pursue educational opportunities that will help them expand their professional network and their knowledge in a practice niche.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 400B Grand Rounds (1 Units) Fall, Winter, Spring

Instructor(s): Elise Armstrong

Prerequisite(s): Completion of physical therapy program courses, to date

Restrictions: 2nd-Year Physical Therapy DPT students only.

Activities: Lecture

This course is designed to facilitate interdisciplinary communication and interaction between doctoral students in physical therapy and professionals in other health care disciplines and the larger community on topics of mutual interest, and to assist students in developing habits of community engagement and lifelong learning. Students are encouraged to pursue educational opportunities that will help them expand their professional network and their knowledge in a practice niche.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 400C Grand Rounds (1 Units) Fall, Winter, Spring

Instructor(s): Elise Armstrong

Prerequisite(s): Completion of physical therapy program courses, to date

Restrictions: 3rd-Year Physical Therapy DPT students only.

Activities: Lecture

This course is designed to facilitate interdisciplinary communication and interaction between doctoral students in physical therapy and professionals in other health care disciplines and the larger community on topics of mutual interest, and to assist students in developing habits of community engagement and lifelong learning. Students are encouraged to pursue educational opportunities that will help them expand their professional network and their knowledge in a practice niche.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 410 Integrated Clinical Experience (1 Units) Fall

Instructor(s): Stephen Baxter, Lisa Hayes

Prerequisite(s): None

Restrictions: Enrollment in graduate program in physical therapy and

satisfactory completion of academic coursework

Activities: Clinical

Students assume the role of student clinicians in physical therapy. Students are expected to follow all facility policies, professional codes of conduct, and individual guidelines provided by their clinical instructors (Cls). This integrated clinical experience gives students the opportunity to work with patients under close supervision of licensed physical therapist clinical instructors.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 418 Terminal Clinical Experience (16 Units) Fall, Spring, Summer

Instructor(s): Lisa Hayes, Theresa Jaramillo

Prerequisite(s): Enrollment in graduate program in Physical Therapy. \r\nCompletion of PT 801, and 802 with a minimum GPA of 3.0 in coursework to date.

Restrictions: Open only to students enrolled in DPT Program

Activities: Clinical

In a clinical setting, students treat patients and work with experienced clinicians who provide mentoring and consultation for case reviews, physical therapy techniques and review of specialty areas.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 419A Research Seminar I (0.5 Units) Spring

Instructor(s): Myriam Chaumeil, Robert Matthew

Prerequisite(s): Enrolled in the DPT program, 2nd year standing.

Restrictions: DPT students are required to participate in both their 2nd

and 3rd years.

Activities: Seminar

Each part of the PT 419A,B,C course series consists of three components: overview of a research topic, lecture and seminar series, and small group learning activities. Students will gain an understanding of the basic methodologies which are used in research in that topic, and will integrate the material presented with other coursework in the curriculum. At the end of the series, students will be able to understand and relate the relevance of research to the field of physical therapy.

School: Graduate Division

**Department: Physical Therapy Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PHYS THER 419B Research Seminar II (0.5 Units) Summer

Instructor(s): Valerie Block

Prerequisite(s): Enrolled in the DPT program, 2nd year standing.

Restrictions: DPT students are required to participate in both their 2nd and 3rd years.

Activities: Seminar

Each part of the PT 419A,B,C course series consists of three components: overview of a research topic, lecture and seminar series, and small group learning activities. Students will gain an understanding of the basic methodologies which are used in research in that topic, and will integrate the material presented with other coursework in the curriculum. At the end of the series, students will be able to understand and relate the relevance of research to the field of physical therapy.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PHYS THER 419C Research Seminar III (0.5 Units) Fall

Instructor(s): Robert Matthew

Prerequisite(s): Enrolled in the DPT program, 3rd year standing.

Restrictions: DPT students are required to participate in both their 2nd and 3rd years.

Activities: Seminar

Each part of the PT 419A,B,C course series consists of three components: overview of a research topic, lecture and seminar series, and small group learning activities. Students will gain an understanding of the basic methodologies which are used in research in that topic, and will integrate the material presented with other coursework in the curriculum. At the end of the series, students will be able to understand and relate the relevance of research to the field of physical therapy.

School: Graduate Division

**Department:** Physical Therapy Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

# Preventive and Restorative Dental Sciences (PRV RS DEN)

### PRV RS DEN 104 Introductory Biomaterials Science (2 Units) Fall, Summer

Instructor(s): Stefan Habelitz
Prerequisite(s): none

Restrictions: ID2s, ID3s

Activities: Lecture, Independent Study

In this course, internationally trained dentists will review the material properties and clinical indications for the use of ceramics (including CAD/CAM), adhesive dentistry, mineralized tissues, composites, optical properties and lasers, and metals and alloys (gold). This course will review design and engineering principles required to critically assess commercial dental materials in their daily practice as well as in their future educational training as a successful dentist.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### PRV RS DEN 106 Removable & Fixed Prosthodontics, Restorative, & Endodontics (12.5 Units) Summer

Instructor(s): Nejleh Abed, Mark Dellinges, Daniel Mendoza, Nejleh Abed, Rishabh Acharya, David Graham

Prerequisite(s): None

Restrictions: ID3 Activities: Lecture

This simulation course is intended for ID3 students to review core concepts for common procedures that will be encountered during their clinical training. Though the concepts are not new, some of the steps or dental materials used for each procedure may be new. These include crown and bridge, root canal therapy, implant restorations, restorative procedures, complete dentures, and removable partial dentures. This includes treatment planning, procedures, and handling of relevant materials.

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

#### PRV RS DEN 116 Morphology, Restorative Technique, & **Biomaterials (4 Units) Fall**

Instructor(s): Neileh Abed, Daniel Fried, Daniel Mendoza, Ramneek Rai, **David Graham** 

Prerequisite(s): none

Restrictions: D1 Activities: Lecture

The first in a series, this simulation course immerses students in the language of dentistry. Students will also start learning about morphology of adult teeth, the caries disease process, detecting caries, and managing caries in various ways. Students will begin using the dental drill for caries removal and minimally invasive restorations, using proper ergonomics and indirect vision. Students will also start learning about the numerous

dental materials that are used in clinical practice. \n

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

Graduate Division course: No

#### PRV RS DEN 117 Restorative Technique, Crown & Bridge, & Biomaterials I (5.5 Units) Winter

Instructor(s): Nejleh Abed, Daniel Mendoza, Stefan Habelitz Prerequisite(s): PRV RS DEN 116

Restrictions: D1

Activities: Lecture

This course builds upon concepts and techniques learned in PRDS 116. It is the second in a series of simulation courses for first-year dental students. Students will learn the principles of cavity preparation design and practice intracoronal restoration preparations and gold crown preparations and temporization. Finally, students will continue learning about the numerous dental materials that are used in daily clinical practice.

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No Repeat course for credit? No

#### PRV RS DEN 118 Restorative Technique, Crown & Bridge, & Biomaterials II (6 Units) Spring

Instructor(s): Nejleh Abed, Daniel Mendoza, Sunita Ho Prerequisite(s): PRV RS DEN 116, PRV RS DEN 117

Restrictions: D1

Activities: Lecture

This course is the third in a series of D1 simulation courses and builds upon concepts and techniques learned in PRDS 116 and 117. Students will learn about treatment planning and performing Class II, III, and IV composite preparations and restorations, PFM, gold onlay preparations, anterior and posterior porcelain-fused to metal, zirconia, and E-max crown preparation and provisionalization. Students will continue learning about dental materials used in clinical practice.

School: Dentistry

**Department:** Preventive And Restorative Dental Sciences May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PRV RS DEN 126 Removable Partial Dentures, Crown & Bridge, & Operative (6 Units) Summer

Instructor(s): Mark Dellinges, Daniel Mendoza, David Graham
Prerequisite(s): none

Restrictions: D2, ID2

Activities: Lecture

This course builds upon concepts and techniques learned in PRDS 116, 117, and 118. It is the first in a series of simulation courses for second-year dental students. Students will learn about treatment planning, designing, and performing lab steps for removable partial dentures. Additionally, students will learn more complex operative and crown & bridge procedures, as well as anterior veneers.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

#### PRV RS DEN 127 Complete Dentures, Endodontics, & Adv Restorative Technique (5.5 Units) Fall

Instructor(s): Mark Dellinges, Daniel Mendoza

Prerequisite(s): none

Restrictions: D2, ID2

Activities: Lecture

This course builds upon concepts and techniques learned in PRDS 126. It is the second in a series of D2 simulation courses. Students will learn about treatment planning, designing, and performing lab steps for complete dentures and continue to learn about crowns as well as fixed partial dentures, or bridges. Finally, students will learn about diagnosis and treatment planning for root canal therapy, and will perform the steps of non-surgical root canal therapy on single-rooted teeth.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PRV RS DEN 128 Complete Dentures, Fixed Partial Dentures & Endodontics (10.5 Units) Winter

Instructor(s): Daniel Mendoza, Mark Dellinges, Nejleh Abed
Prerequisite(s): none

Restrictions: D2, ID2

Activities: Lecture

This course builds upon concepts and techniques learned in PRDS 127. Students will learn more advanced concepts related to complete dentures, root canal therapy for multi-rooted canal systems, restoration of endodontically treated teeth, advanced concepts in caries removal and esthetic restorations, the use of CAD/CAM technology, and treatment planning for implant restorations, critically analysing lab work for implant restorations, and using the different instruments for implant restorations.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PRV RS DEN 129 Implant and Pediatric Dentistry (1 Units) Spring

Instructor(s): Jean Calvo, Rishabh Acharya

Prerequisite(s): Successful completion of the first three quarters of the 2nd year curriculum.

Restrictions: ID2, D2

Activities: Lecture

In this course, students will be introduced to treatment planning for implant restorations, critically analyzing lab work for implant restorations, and using the different instruments for implant restorations will also be emphasized. In the pediatric section of this course, students will be introduced to fundamental concepts and procedures in preventive and restorative pediatric dentistry. Instruction will be given via asynchronous lecture and will be simulation-based.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

# PRV RS DEN 180 Teaching Methodologies in Dental Education (0.5-8.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Joel White

Prerequisite(s): Successful completion of D1 and D2 curriculum or

equivalent.

Restrictions: 3rd and 4th year dental and international dental students, or consent of course director.

Activities: Seminar, Clinical, Independent Study, Project, Workshop

This is an elective course designed to introduce pre-doctoral dental students to instructional methods and curriculum development.

Preparatory seminars and web-based work reviewing relevant educational literature and student teaching experiences in clinics and laboratories provide experience in teaching and assessment in dental education.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/
Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PRV RS DEN 181 Dental Spanish and Latino Health (1 Units) Spring

Instructor(s): Daniel Mendoza Prerequisite(s): None

Restrictions: First-, Second-, Third-, and Fourth-Year DDS and IDP

students

Activities: Lecture, Independent Study

This beginners course will familiarize students with the Spanish language as it pertains to the patient-dentist interaction. Students will receive didactic and case-based instruction in combination with group exercises to stimulate group practice of the language. The course will also feature guest speaker presentations on topics such as oral health disparities and providing culturally-sensitive care to Hispanic and Latinx populations.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **Psychiatry (PSYCHIATRY)**

## PSYCHIATRY 110 Psychiatry Core Clerkship (1.5-6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Kewchang Lee, Andrew Halls Prerequisite(s): 3rd year standing.

Restrictions: UCSF medical students only.

Activities: Seminar, Clinical

Students, under supervision, are responsible for patient evaluation and participation in treatment planning for inpatients, outpatients, and consultation/liaison, They attend seminars related to clinical work. This course is taught in conjunction with the 4-week Neurology 110 clerkship, resulting in an 8-week long continuity clinic and a combined psychiatry and neurology conference.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

## PSYCHIATRY 130.01 CIEx - Interventional Psychiatry (1.5-4.5 Units) Fall, Winter, Spring,

Instructor(s): Ramotse Saunders

Prerequisite(s): PSYCH 110 recommended but not required.

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Interventional psychiatry is an emerging subspecialty focused on procedural approaches to treating refractory neuropsychiatric disorders. These include electroconvulsive therapy, transcranial magnetic stimulation and ketamine infusion therapy.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PSYCHIATRY 130.03 CIEx - Psychiatry Consultation Service (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lawrence Kaplan

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will join UCSF MC psychiatric consult team and respond to psychiatric consultation requests from medical or surgical inpatient teams and the emergency room.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PSYCHIATRY 130.04 CIEx - Psychiatry Elective - VAMC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Kewchang Lee
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will have opportunities to recognize common diagnoses in psychiatric practice, observe common procedures, and compose treatment plans for these common conditions.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PSYCHIATRY 130.05 CIEx - Correctional Psychiatry in a Jail (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Loren Roth
Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will become familiarized with outpatient psychiatric care in a jail setting, with exposure to new patient evaluations and follow up visits; severely mentally ill patients as well as those with less serious pathology and substance abuse.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PSYCHIATRY 130.06 CIEx - Youth Mental Health -Benioff Children's Hospital (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Hohui Wang, Jeein Yoon Prerequisite(s): Psychiatry 110 Core Clerkship

Restrictions: Foundations 2 Medical Students

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Opportunity for student to be exposed to career of child & adolescent psychiatrists working in a variety of settings. The student will work with patients from a wide range of diverse socioeconomic status, cultural, and ethnic backgrounds.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

## PSYCHIATRY 140 Geriatric Psychiatry (4-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Peter Ureste
Prerequisite(s): PSYCHIATRY 110

Restrictions: None

Activities: Lecture, Clinical, Independent Study

Learners will acquire specialized knowledge and skills in geriatric psychiatry through interviewing patients, writing up and presenting patient cases, and developing treatment plans specific to the mental health care of older adults. Clinical experiences include a combination of assessing patients on the ZSFG inpatient psychiatric unit, ZSFG Geriatric Neurology Cognitive Clinic, consult service, conservatorship legal hearings, neuropsychological testing, and potentially other locations.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PSYCHIATRY 140.01A Advanced Inpatient Psychiatry - UCSF Parnassus - LPPI (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Melody Hu, Joseph Pierre

Prerequisite(s): Psychiatry 110, Neurology 110, and Medicine 110.

Restrictions: Final year

Activities: Lecture, Clinical, Independent Study

This is a tier 1a subinternship on the Parnassus adult inpatient psychiatry unit. The unit serves both voluntary and involuntary patients with a broad range of diagnoses. The unit is run by a multidisciplinary staff including nursing, social work, attendings, and second year students. Students comanage patients with residents and attendings, learning to function at an intern level. Students need not be applying in psychiatry though most who rotate are.

School: Medicine

Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PSYCHIATRY 140.01B Advanced Inpatient Psychiatry - ZSFG (6 Units) Fall, Winter, Spring, Summer

Instructor(s): David Elkin, Descartes Li

Prerequisite(s): Psychiatry 110. Neurology 110. Medicine 110.

Restrictions: Final Year.

Activities: Lecture, Clinical, Independent Study

Students have the opportunity to work in a multidisciplinary team composed of occupational therapists, social workers, pharmacists and physicians. Learning objectives focus on learning culturally competent interviewing, formulation, differential diagnosis, and psychopharmacology in a fast-paced environment where most patients stay 3-5 days. The elective provides intensive exposure to a broad spectrum of conditions encountered in the practice of inpatient public psychiatry.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PSYCHIATRY 140.01C Psychiatry Emergency Services - ZSFG (6 Units) Fall, Winter, Spring, Summer

Instructor(s): John Harbison, Descartes Li

Prerequisite(s): Psychiatry 110. Neurology 110. Medicine 110.

Restrictions: Final Year.

Activities: Lecture, Clinical, Independent Study

Psychiatric Emergency Services at ZSFG offers an exciting, advanced clerkship in emergency psychiatry. The clerkship emphasizes evaluation, diagnostic and risk assessment, medication management, legal issues, and disposition for acutely decompensated individuals. Students work closely with faculty to provide evaluation and treatment for PES patients that reflect a broad spectrum of psychiatric conditions and provide students with a broad experience in general adult emergency psychiatry.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PSYCHIATRY 140.01D Advanced Inpatient Psychiatry - VAMC-SF (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Maria Fernandez, Descartes Li

Prerequisite(s): Psychiatry 110. Neurology 110. Medicine 110.

Restrictions: Final Year.

Activities: Lecture, Clinical, Independent Study

SFVAMC PICU is a 12-bed mixed voluntary-involuntary inpatient psychiatric unit. Learners will be immersed in an intensive inpatient psychiatric clinical experience, with emphasis on continuity of care of a special population (veterans) with a wide variety of diagnoses. Students, with close attending supervision, will assume primary clinical responsibilities for the evaluation/treatment of patients through initial evaluations, somatic treatments such as ECT, through hospitalization and discharge.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PSYCHIATRY 140.011 Geriatric Psychiatry (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Arnaldo Moreno, Descartes Li

Prerequisite(s): Psychiatry 110. Neurology 110. Medicine 110.

Restrictions: Final Year.

Activities: Lecture, Clinical, Independent Study

Learners will acquire specialized knowledge and skills in geriatric psychiatry through interviewing patients independently, writing up and presenting patient cases, and developing treatment plans in clinical settings specific to the mental health care of elders. Clinical experiences include a combination of Geriatric Mood Assessment Clinic, Late-life Post-Traumatic Stress Disorder Clinic, Geriatric-Focused Didactics, ECT, Consults, Home-based Mental Health, and optional Psychotherapy groups.

School: Medicine
Department: Psychiatry

Repeat course for credit? No

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No

### PSYCHIATRY 140.01 J Advanced Outpatient Psychiatry - VAMC-SF (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Danielle Roselin, Descartes Li

Prerequisite(s): Psychiatry 110. Neurology 110. Medicine 110.

Restrictions: Final Year.

Activities: Lecture, Clinical, Independent Study

This elective allows students to learn about a variety of treatment modalities in different clinics treating general outpatient psychiatric problems, including mood and anxiety disorders, as well as psychosis, substance use, geriatric psychiatry, and PTSD. The elective includes pharmacotherapy, psychotherapy, mental health intake and follow-up, and case conferences. Students are supervised by a "home attending," in addition to working with attendings and residents in the clinics.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PSYCHIATRY 140.01L Advanced General Consultation Psychiatry - UCSF Parnassus (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Lawrence Kaplan, Descartes Li

Prerequisite(s): PSYCHIATRY 110\r\nNEUROLOGY 110\r\nMEDICINE 110

Restrictions: Final Year

Activities: Lecture, Clinical, Independent Study

Catatonia, neuroleptic malignant syndrome, Munchausen's syndrome, Conversion Disorder, Somatization, Delirium and Dementia...these are just some of the presentations we see as psychiatric consultants at Moffitt-Long. Students will learn how to assess and manage common and uncommon psychological problems at the interface of medicine and psychiatry. This rotation is excellent preparation for students, providing additional exposure to one of the most fascinating areas of psychiatry.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PSYCHIATRY 140.01M Advanced Consultation Psychiatry - ZSFG (6 Units) Fall, Winter, Spring, Summer

Instructor(s): David Elkin, Descartes Li

Prerequisite(s): Psychiatry 110. Neurology 110. Medicine 110.

Restrictions: Final Year.

Activities: Lecture, Clinical, Independent Study

The Consultation/Liaison services at ZSFG provides an opportunity for medical students, especially those planning a career in or interfacing with primary care, to experience psychiatry in a general hospital setting. Students interview inpatients from various services (medicine, surgery, ob-gyn among others), formulate differential diagnoses, as well as psychodynamic and cultural formulations and utilize brief psychotherapy and psychopharmacology approaches.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## PSYCHIATRY 140.01P Advanced Consultation-Liaison Psychiatry - VAMC-SF (6 Units) Fall, Winter, Spring,

Instructor(s): Kewchang Lee, Descartes Li

Prerequisite(s): Psychiatry 110, Neurology 110, and Medicine 110.

Restrictions: Final Year

Activities: Lecture, Clinical, Independent Study

This elective allows students to learn about providing psychiatric consultation to their colleagues on the inpatient medical-surgical wards. Common diagnoses include delirium, dementia, and depressive and personality disorders. Medicolegal issues, such as decision-making capacity and mental health holds, also arise frequently. Students will also have the opportunity to see outpatients in clinics with a psychiatry subspecialty focus, such as geriatric psychiatry, PTSD, and addiction.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# PSYCHIATRY 140.01R Advanced Forensic Psychiatry - UCSF Parnassus - LPPI (6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Renee Binder, Descartes Li Prerequisite(s): Psychiatry 110.

Restrictions: Final Year. Grading: Pass/No Pass.

Activities: Clinical, Independent Study, Project

Medical students will gain exposure to the field of forensic psychiatry through observation, active participation with forensic experts, and direct work with incarcerated patients. They will work at San Quentin State Prison two days/week and attend law school classes at Hastings College of Law when in session. They will learn about civil and criminal cases that involve psychiatric expertise and participate in a landmark case seminar that reviews cases at the interface of psychiatry and the law.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### PSYCHIATRY 140.01U Advanced Child Psychiatry (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Caitlin Costello, Descartes Li

Prerequisite(s): Psychiatry 110. Neurology 110. Pediatrics 110

Restrictions: Final Year.

Activities: Lecture, Clinical, Project

This course has been designed to expose the student to a variety of outpatient and inpatient settings in which child psychiatrists function. Students will gain exposure to the psychiatric assessment and treatment of children and adolescents, and will learn how to function as part of an interdisciplinary team. Students will also complete an independent project.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### PSYCHIATRY 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Descartes Li

Prerequisite(s): Consent of Department of Psychiatry.

Restrictions: Good academic standing

Activities: Clinical

Clinical clerkship in off-campus hospitals, approved by the chairperson of the department and the dean.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PSYCHIATRY 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Descartes Li

Prerequisite(s): Consent of Department of Psychiatry.

Restrictions: Good academic standing

Activities: Clinical

Clinical clerkship in off-campus hospitals, approved by the chairperson of the department and the dean.

School: Medicine

Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### PSYCHIATRY 140.08 Advanced Consultation-Liaison Psychiatry - Fresno (4.5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Daniel Kirsten

Prerequisite(s): Psychiatry 110 or consent of Department.

Restrictions: 4th year elective students.

Activities: Seminar, Clinical

The consultation-liaison service provides psychiatric consultation to medically hospitalized inpatients at the request of the attending physician of record. The rotation provides a wide breadth of exposure to acute psychiatric issues including psychosis, mania, suicidal ideation, and delirium. Students are expected to independently evaluate patients, obtain a history and mental status examination and present to the attending staff. Learning opportunities include daily rounds and didactics.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### PSYCHIATRY 150.01 Research in Psychiatry (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of faculty member in charge of student's research project, and approval of psychiatry medical student education director and staff coordinator.

Restrictions: None.

Activities: Project

Student works on research project under the guidance of faculty mentors and supervisor.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### PSYCHIATRY 170.01 Artificial Intelligence in Medicine (1 Units) Fall

Instructor(s): Descartes Li Prerequisite(s): None

Restrictions: None
Activities: Lecture

This elective will focus on the ways that AI is changing medicine. Our speaker series will include doctors and researchers at UCSF and beyond who are pioneering the integration of AI into clinical medicine, and who are excited to share their expertise with students entering the healthcare industry.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PSYCHIATRY 170.17B Issues in Psychiatry (0.5-1 Units) Fall, Winter, Spring

Instructor(s): Descartes Li

Prerequisite(s): Consent of Department of Psychiatry

Restrictions: none
Activities: Seminar

Explores focal psychiatric issues in systematic format. Current electives include substance abuse, women's psychological health, the development of physician identity, cross-cultural issues. New topics are designed according to faculty/student interests.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### PSYCHIATRY 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of Department of Psychiatry or instructor.

Restrictions: None

Activities: Independent Study

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine
Department: Psychiatry

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **Radiation Oncology (RAD ONCOL)**

#### RAD ONCOL 130.01 CIEx - Radiation Oncology Apprenticeship (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Harish Vasudevan, Steve Braunstein

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. On Attending-Resident paired services, students will assist with components of the Radiation Oncology care pathway, including initial patient consultation, interdisciplinary discussion, radiotherapy planning/delivery, and patient follow up.

School: Medicine

**Department: Radiation Oncology** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### RAD ONCOL 140.01 Radiation Oncology Clerkship (6-8 Units) Fall, Winter, Spring, Summer

Instructor(s): Harish Vasudevan, Steve Braunstein

Prerequisite(s): MEDICINE 110

Restrictions: None

Activities: Lecture, Clinical

Mentored by residents and faculty, students will perform H&Ps on patients under evaluation for radiation therapy (mostly cancer patients), participate in clinics, attend teaching conferences, chart rounds, and tumor boards, and have the opportunity to observe a wide variety of radiotherapeutic approaches. Students have the option of giving a 20-60 minute presentation on a topic of their choice toward the end of the rotation.

School: Medicine

**Department:** Radiation Oncology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## RAD ONCOL 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Harish Vasudevan, Steve Braunstein

Prerequisite(s): MEDICINE 110

Restrictions: None
Activities: Clinical

Students will perform H&Ps on patients under evaluation for radiation therapy (mostly cancer patients), participate in clinics, attend teaching conferences, and have the opportunity to observe a variety of radiotherapeutic approaches.

School: Medicine

**Department: Radiation Oncology** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RAD ONCOL 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Harish Vasudevan, Steve Braunstein

Prerequisite(s): MEDICINE 110

Restrictions: None
Activities: Clinical

Students will perform clinical assessments of patients under evaluation for radiation therapy (mostly cancer patients), participate in clinics, attend teaching conferences, and have the opportunity to observe a variety of radiotherapeutic approaches.

School: Medicine

**Department:** Radiation Oncology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RAD ONCOL 140.03 Virtual Radiation Oncology (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Harish Vasudevan, Steve Braunstein

Prerequisite(s): None

Restrictions: 4th year students in good Academic Standing

Activities: Clinical

Via remote distance learning and Telehealth approaches, students perform histories & physicals (H&Ps) on cancer patients, participate in discussions of treatment recommendations, attend tumor boards, teaching conferences, and clinics, and have the opportunity to learn about a wide variety of radiotherapeutic techniques.

School: Medicine

**Department: Radiation Oncology** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### RAD ONCOL 150.01 Research in Radiation Oncology (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Harish Vasudevan, Steve Braunstein

Prerequisite(s): UCSF students only. \r\nConsent of faculty member in charge of students research project and approval of UME and coordinator.

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Restrictions: UCSF students only.

Activities: Project

Students participate in individual radiation oncology clinical or laboratory research under the close supervision of individual staff instructors.

School: Medicine

**Department:** Radiation Oncology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RAD ONCOL 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Harish Vasudevan, Steve Braunstein

Prerequisite(s): Consent of instructor preceptor and approval of third- and

fourth-year coordinator.

Restrictions: Medical students only

Activities: Independent Study, Project

Focused study and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department: Radiation Oncology** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RAD ONCOL 235A Radiation Therapy Physics I (3 Units) Fall

Instructor(s): Adam Cunha

Prerequisite(s): The course expects knowledge of radiation detection and measurement

Restrictions: None
Activities: Lecture

The two quarters of this course series (235 A and B) cover the fundamentals of the physics of radiation therapy: the physics of radiation interactions relevant to radiation therapy, the machines that produce this radiation, the measurement of radiation quantities, and dose calculation. The physics of photon, electron, proton, and ion beams, brachytherapy, and hyperthermia are covered. Monte Carlo techniques are introduced as well as the basics of machine commissioning.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

#### RAD ONCOL 235B Radiation Therapy Physics II (3 Units) Winter

Instructor(s): Adam Cunha Prerequisite(s): 235A

Restrictions: None

Activities: Lecture

The two quarters of this course series (235 A and B) cover the fundamentals of the physics of radiation therapy: the physics of radiation interactions relevant to radiation therapy, the machines that produce this radiation, the measurement of radiation quantities, and dose calculation. The physics of photon, electron, proton, and ion beams, brachytherapy, and hyperthermia are covered. Monte Carlo techniques are introduced as well as the basics of machine commissioning.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### RAD ONCOL 235C Radiation Therapy Physics III & Clinical Rotation (3 Units) Spring, Summer

Instructor(s): Adam Cunha

Prerequisite(s): Radiation Oncology 235A and 235B

Restrictions: None
Activities: Clinical

This course will provide exposure to clinical medical physics activities commonly encountered in radiation oncology clinics. The student will rotate through various treatment modalities in the Radiation Oncology clinic to become familiar with medical physics procedures involved. The course will be divided into multi-week blocks. During each block the student will participate in clinical activities of a single service under the mentorship of one physics faculty.

School: Graduate Division

**Department:** Bioengineering Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? No

#### Radiology (RADIOLOGY)

# RADIOLOGY 130.01 CIEx - Interventional Radiology - UCSF Parnassus (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Evan Lehrman
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will learn unique and innovative treatment options available to patients in Interventional Radiology. Students will participate in morning rounds, inpatient consult service, outpatient clinic service, the angio suite, and conferences.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### RADIOLOGY 130.02 CIEx - Interventional Radiology - VAMC-SF (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Rajiv Sawhney
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course will provide students with subspecialty experience in interventional radiology, including opportunities to recognize common diagnoses in interventional radiology practice, observe common procedures, and compose treatment plans.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### RADIOLOGY 130.03 CIEx - Interventional Radiology Immersion - ZSFG (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sujal Nanavati, Vishal Kumar

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will learn unique and innovative treatment options available to patients in Interventional Radiology. Students will participate in morning rounds, inpatient consult service, outpatient clinic service, the angio suite, and conferences.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

## RADIOLOGY 130.04 CIEx - Apprenticeship Experience in Radiology (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Emily Webb

Prerequisite(s): Permission of Course Director

Restrictions: This course is only open to third year UCSF students considering Radiology as a career and hoping to gain some clinical exposure before fourth year.

Activities: Clinical

This course gives an overview of the practice of radiology intended for third year students considering it as a career. It provides an introduction to the reading room and procedure rooms across an array of radiology subspecialties: thoracic, abdominal, pediatric radiology, neuroradiology, musculoskeletal, women's imaging, nuclear medicine, ultrasound, and interventional. (For guidance on which Radiology course(s) to take: http://www.radiology.ucsf.edu/education/medical-students/application).

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## RADIOLOGY 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Emily Webb
Prerequisite(s): Medicine 110

Restrictions: None
Activities: Clinical

This clinical visiting clerkship at an approved, non-UCSF institution provides the opportunity for learners to explore the role of radiology in clinical medicine, and to develop skill in performing select imaging workups and effective team and family-oriented communication. Enrollment requires the approval of the chairperson of the department and the dean.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RADIOLOGY 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Emily Webb
Prerequisite(s): Medicine 110

Restrictions: none

Activities: Clinical

This clinical visiting clerkship at an approved, non-UCSF institution provides the opportunity for learners to explore the role of radiology in clinical medicine, and to develop skill in performing select imaging workups and effective team and family-oriented communication. Enrollment requires the approval of the chairperson of the department and the dean.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RADIOLOGY 140.03 Diagnostic Radiology (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Emily Webb, Maya Vella
Prerequisite(s): MEDICINE 110, SURGERY 110

Restrictions: 4th year students only

Activities: Lecture

Didactic clerkship in radiology for fourth-year students. Students who have completed the radiology clerkship successfully can be expected to have elementary knowledge of: normal radiologic anatomy, radiologic appearances of common diseases, and an understanding of the rationale for ordering specific radiological in defined clinical situations. (For guidance on which Radiology course(s) to take: http://www.radiology.ucsf.edu/education/medical-students/application).

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### RADIOLOGY 140.13A Clinical Radiology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Malcolm Anderson
Prerequisite(s): 4th year standing

Restrictions: n/a

Activities: Seminar, Clinical, Independent Study

This clerkship is designed to acquaint students with the use and indications of techniques in CT, MRI, ultrasound, as well as conventional radiological examination and fluoroscopy and their clinical use. This clerkship also provides an introduction to basic interpretation a primary care physician might need.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RADIOLOGY 140.15 Introduction to Interventional Radiology (6 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Miles Conrad, Mark Wilson, Evan Lehrman, Vishal Kumar Prerequisite(s): Completion of first 2 years of medical school.

Restrictions: None
Activities: Clinical

Students will be introduced to the field of interventional radiology. This will include simulation of core ultrasound guided procedures (paracentesis, thoracentesis, venous access), and hands on patient procedures. He or she will spend 4 weeks working alongside the IR service resident, NP, and attending to diagnose, treat, and care for patients with a variety of conditions in the oncology, trauma, critical care and hospital setting. A subfocus will be on neurointerventional interventions.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### RADIOLOGY 140.18 Interventional Radiology: VAMC (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Rajiv Sawhney

Prerequisite(s): Consent of instructor.

Restrictions: None
Activities: Clinical

Participate on the interventional radiology team at the VA including: pre-procedure work-up, post-procedure monitoring, and scrub in on all cases. Procedures include diagnostic angiography, angioplasty/stent, embolization, thrombolysis, CT/ultrasound guided abscess drainage, chest tubes, biliary drainage, nephrostomy, percutaneous cholecystostomy, TIPS, central venous access, etc.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### RADIOLOGY 140.19 Advanced Clinical Clerkship in Radiology (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Maya Vella, Emily Webb Prerequisite(s): Consent of Course Director

Restrictions: Open to UCSF and U.S. students\r\nMedical students only

Activities: Clinical

Students observe the practice of radiology in the reading room with an emphasis on image interpretation, observing procedures, and viewing teaching files. May choose a specific subspecialty area of academic interest including: Abdominal, Cardiac & Pulmonary, Interventional, Musculoskeletal, Neuroradiology, Nuclear Medicine, Pediatrics, Ultrasound, or Women's Imaging. (For guidance on which Radiology course(s) to take: http://www.radiology.ucsf.edu/education/medical-students/application).

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### RADIOLOGY 140.22 Interventional Radiology - UCSF Parnassus (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Evan Lehrman

Prerequisite(s): Completion of first two years of medical school.

Restrictions: None
Activities: Clinical

Students will have the opportunity to review the indications for Interventional Radiology procedures; perform patient histories and physical exams; discuss new and current patients with the IR team; scrub and assist the IR service resident, fellow, and attending; and have opportunity for pre- and post-procedural outpatient care in IR clinic. Students will follow patients with vascular, oncologic, hepatobiliary, gastrointestinal, gynecologic, and urologic conditions in ICU and hospital settings.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### RADIOLOGY 150.01 Research in Radiology (2-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Maya Vella, Emily Webb

Prerequisite(s): Medicine 110 and approval of instructor.

Restrictions: None

Activities: Fieldwork, Project

A research project under the direction of a member of the faculty.

School: Medicine

**Department: Radiology And Biomedical Imaging** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### RADIOLOGY 170.04 Introduction to Radiology (1 Units) Fall

Instructor(s): Emily Webb
Prerequisite(s): None.

Restrictions: Restricted to 1st and 2nd year medical students.

Activities: Lecture

This course is intended for first-year and second-year medical students who are interested in medical imaging from a clinical or research perspective. Through weekly lectures by radiologists from the UCSF Department of Radiology, student will be introduced to the various specialties within the field of radiology; the fundamental theory, clinical utility, and limitations of each imaging modality; and, the most recent scientific advances in and future applications of medical imaging.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### RADIOLOGY 170.08 Introduction to Interventional Radiology (1 Units) Fall, Winter, Spring, Summer

*Instructor(s)*: Vishal Kumar, Evan Lehrman, Miles Conrad Prerequisite(s): None.

Restrictions: Restricted to 1st and 2nd year medical students

Activities: Lecture

This course is intended for first-year and second-year medical students who are interested in interventional radiology. Through lectures by interventional radiologists from the UCSF Department of Radiology, student will be introduced to the field of interventional radiology; the fundamental theory, clinical utility and limitations of the field; and the most recent scientific advances in and future applications of interventional radiology.

School: Medicine

**Department:** Radiology And Biomedical Imaging

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### RADIOLOGY 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Maya Vella, Emily Webb Prerequisite(s): Approval of instructor

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine

**Department:** Radiology And Biomedical Imaging **May the student choose the instructor for this course?** No

Does enrollment in this course require instructor approval? Yes
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

#### **Rehabilitation Science (REHAB SCI)**

### REHAB SCI 200A Laboratory Rotation I (3 Units) Fall, Winter, Spring

Instructor(s): Richard Souza
Prerequisite(s): None

 ${\it Restrictions: First-year \ students \ in \ the \ PhD \ in \ Rehabilitation \ Science}$ 

program

Activities: Lab science

Students will rotate through different faculty laboratories to learn new instrumentation and scientific methodology and undertake an individual study with emphasis on special problems in rehabilitation science including areas related to the student's long term interests, future research interests, or clinical specialization.

School: Graduate Division

**Department: Rehabilitation Science Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

## REHAB SCI 200B Laboratory Rotation II (3 Units) Fall, Winter, Spring

Instructor(s): Richard Souza
Prerequisite(s): RS200A

Restrictions: First-year students in the PhD in Rehabilitation Science

program

Activities: Lab science

Students will rotate through different faculty laboratories to learn new instrumentation and scientific methodology and undertake an individual study with emphasis on special problems in rehabilitation science including areas related to the student's long term interests, future research interests, or clinical specialization. The goals of this course are to provide overall exposure to various lab environments to assist the student in identifying a lab in which to perform their dissertation work.

School: Graduate Division

**Department: Rehabilitation Science Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course**: Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### REHAB SCI 200C Laboratory Rotation III (3 Units) Fall, Winter, Spring

Instructor(s): Richard Souza Prerequisite(s): RS200A, RS200B

Restrictions: First-year students in the PhD in Rehabilitation Science

program

Activities: Lab science

Students will rotate through different faculty laboratories to learn new instrumentation and scientific methodology and undertake an individual study with emphasis on special problems in rehabilitation science including areas related to the students' long term interests, future research interests, or clinical specialization. The goals of this course are to provide overall exposure to various lab environments to assist the student in identifying a lab in which to perform their dissertation work.

School: Graduate Division

Department: Rehabilitation Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### REHAB SCI 201 Introduction to Rehabilitation Science (2 Units) Fall, Winter, Spring

Instructor(s): Richard Souza

Prerequisite(s): Consent of instructor.

 $\label{lem:Restrictions: First-year students in the PhD in Rehabilitation Science} \\$ 

program.

Activities: Lecture

This required course for PhD students 1) provides an introduction to the areas of rehabilitation science research, and 2) provides historical perspective on the major issues in rehabilitation science. Students will learn about resources and on-going research projects within the University, and will read classic papers of the last 150 years with the objective of understanding the fundamental discoveries that have shaped the discipline of rehabilitation science.

School: Graduate Division

**Department:** Rehabilitation Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### REHAB SCI 202 Gross and Regional Anatomy (1 Units) Winter, Spring

Instructor(s): Jennifer Kinder, Richard Souza Prerequisite(s): Consent of instructor

Restrictions: First-year students in the PhD in Rehabilitation Science

program

Activities: Lab science

Students investigate a regional of human anatomy with direct relevance to their area of research interest. Course includes mentored cadaveric dissection, radiological imaging, ultrasound imaging, focused study of embalmed material. Goals are to gain a deep understanding of the region of interest and to relate the knowledge to studies in the Musculoskeletal Biomechanics or Clinically Informed Neuroscience tracks. Example foci are lower limb joints, nerve paths, spinal cord in situ.

School: Graduate Division

**Department: Rehabilitation Science Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### REHAB SCI 203 Doctoral Colloquium (1 Units) Fall, Winter, Spring

Instructor(s): Richard Souza
Prerequisite(s): Instructor approval

Restrictions: Students in the PhD in Rehabilitation Science program

Activities: Lecture

Forum to discuss current research of students and faculty members, practice influence on research, translation of research to practice. Topics: professional development, including manuscript reviews; selection of journals for publication of one's work; ethical decisions in publication, grant review, authorship; participation in professional organizations; best practices in teaching, research decisions, collaborations, mentoring; scholarship and funding opportunities, strategies, and decisions.

School: Graduate Division

**Department:** Rehabilitation Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? Yes Repeat course for credit? Yes

### REHAB SCI 204 Application of Principles of Learning (3 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): REHAB SCI 201, REHAB SCI 200A, REHAB SCI 200B,

**REHAB SCI 200C** 

Restrictions: PhD in Rehabilitation Science students

Activities: Lecture, Workshop

Required instructional course in rehabilitation science problem-solving; taught by faculty members in the DPT program and other departments at UCSF. The course is designed to strengthen students' understanding of the foundations of rehabilitation science and research knowledge, introduce effective teaching strategies, and improve problem-solving skills by providing the opportunity to serve as teaching assistants in various courses.

School: Graduate Division

Department: Rehabilitation Science Program

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### REHAB SCI 205 Biomechanics of Human Motion (2 Units) Spring

Instructor(s): Richard Souza, Victor Cheuy

Prerequisite(s): REHAB SCI 201

Restrictions: Limited to Rehabilitation Science students

Activities: Lecture, Project

This course introduces students to the concepts of mechanics as they apply to human motion. The primary areas of study include anthropometry, kinematics, kinetics, muscle function, and muscle modeling, placing emphasis on the biomechanics of locomotion using the inverse dynamics approach for calculating moments of force and joint power.

School: Graduate Division

**Department: Rehabilitation Science Program** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

### REHAB SCI 206 Journal Club (1 Units) Fall, Winter, Spring

Instructor(s): Richard Souza
Prerequisite(s): Instructor Approval

Restrictions: Students in the PhD in Rehabilitation Science Program

Activities: Lecture

Designed for PhD students in Rehabilitation Science to explore literature across the spectrum of biomedical sciences. Students will be assigned articles to read and present at meetings attended by students, postdocs, faculty and staff. Students will be expected to read articles outside of class time and come prepared with clear and succinct evaluation about each article. Faculty leads will provide feedback on article evaluation and work with students to hone their literature evaluation skills.

School: Graduate Division

**Department:** Rehabilitation Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### REHAB SCI 250 Research (0.5-8 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Instructor approval

Restrictions: PhD in Rehabilitation Science students

Activities: Lab science

Students conduct research projects under guidance of faculty member. Projects must be approved by both the research mentor supervising the student and the program director. Students may initiate or become involved in established research programs under faculty guidance.

School: Graduate Division

**Department:** Rehabilitation Science Program

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: Yes
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? Yes

# REHAB SCI 290 Rehabilitation Science Related Studies (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Richard Souza
Prerequisite(s): None

Restrictions: None

Utility course; for departmental use only.

School: Graduate Division

**Department:** Rehabilitation Science Program

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### **Restorative Dentistry (RESTOR DEN)**

#### RESTOR DEN 199.04 Advanced Restorative Dentistry (0.5-2 Units) Fall, Winter, Spring, Summer

Instructor(s): Joel White
Prerequisite(s): None

Restrictions: None
Activities: Lecture

Students will engage in learning advanced operative dentistry skills and techniques. Didactic and laboratory experiences will provide students with additional foundation of restorative and operative dentistry, including diagnosis, treatment planning, prevention, minimally invasive dentistry and advanced restorative techniques. Students will then engage in laboratory projects under direction of the faculty.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No
Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

### RESTOR DEN 203 Mineralized Tissues: Science, Engineering & Clinical Aspects (2 Units) Spring

Instructor(s): Sunita Ho, Stefan Habelitz

Prerequisite(s): Enrollment in a postgraduate program.

Restrictions: None
Activities: Lecture

This course will emphasize Mineralized Tissues and the use of Biomaterials for the Craniofacial Complex. Focus is on understanding diverse aspects of craniofacial development, in particular the biology and engineering of mineralized tissue including the formation of specialized matrices which enable biomineralization, stem cell biology and morphogenesis, as well as etiologies of diseases and clinical approaches to tissue or organ repair.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### RESTOR DEN 213 Chemical Aspects of Dental Caries (2 Units) Fall

Instructor(s): Peter Rechmann
Prerequisite(s): None

Restrictions: None

Activities: Lecture

The biochemical basis for understanding the mechanisms of dental caries will be presented. Topics include tooth ultrastructure, tooth chemistry, plaque metabolism, immunology, protective functions of saliva, enzymes, caries risk assessment, the roles of fluoride, and mechanisms of de- and remineralization.

School: Graduate Division

Department: Oral And Craniofacial Sciences MS Program
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

**Graduate Division course:** Yes **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### **Scientific Methods (SCIMETHODS)**

### SCIMETHODS 117 Foundations of Scientific Inquiry (2 Units) Fall

Instructor(s): Benjamin Chaffee

Prerequisite(s): None

Restrictions: none

Activities: Lecture, Project, Web work

Contemporary dental care is provided in a way that is evidence-based. This course provides a foundation for the scientific method as well as searching for, reading, and critically appraising literature. These skills will help you determine if and when devices, drugs, or techniques should be applied to your specific patients care. You will also learn about clinical and translational research methods and design, levels of evidence, and quality of evidence.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SCIMETHODS 118 Professional and Community Oral Health Issues (2.5 Units) Spring

Instructor(s): Lisa Berens
Prerequisite(s): none

Restrictions: D1

Activities: Lecture, Project

In this course, students will learn about dental public health, oral health surveillance, oral health disparities, social determinants of health, and preventive dentistry in a theoretical, practical, and personal manner. Students will also hear personal stories about substance abuse among health professionals, and how to get help.

School: Dentistry

Department: Preventive And Restorative Dental Sciences
May the student choose the instructor for this course? No
Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SCIMETHODS 223A Integrative Biobehavioral Methods in Studying Symptoms (2 Units) Winter

Instructor(s): Sandra Weiss

Prerequisite(s): Minimum of masters level preparation in research design and methods.

Restrictions: Enrollment in a PhD program or postdoctoral fellowship, or in other studies preparing the participant for a research career.

Activities: Lecture, Seminar, Project

This course focuses on integrative, multi-method approaches for the use of self-report or observational measures in conjunction with genetic or neuroendocrine markers, electrophysiologic sensors, microbial sampling or other biological measures of a symptom. Participants will design biobehavioral methods to achieve a more comprehensive, multi-system understanding of a symptom or symptom clusters. Analytical strategies for synthesizing two or more measures of a symptom will also be addressed.

School: Nursing

**Department: Community Health Care Systems** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### Sociology (SOCIOLOGY)

### SOCIOLOGY 206 Commercial Determinants of Health (2-3 Units) Fall

Instructor(s): Stella Bialous Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Fieldwork, Discussion

Course examines the positive and negative contributions of corporate entities to health, health care and health policy within the US and globally, focusing on developing critical thinking and policy analysis skills related to system-level structural-economic factors that influence health. Includes content from research and theoretical literature related to corporate personhood, rights, responsibilities and accountability and its application to health policy and ethics discourse.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SOCIOLOGY 207 Sociology of Health & Medicine (5 Units) Fall

Instructor(s): Howard Pinderhughes

Prerequisite(s): None.

Restrictions: Doctoral students in any field; other students with instructor

approval only.

Activities: Seminar, Project, Discussion

Course introduces the student to classical perspectives in medical sociology and development of a critical perspective in the field to serve as a foundation for independent and advanced study in medical sociology.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SOCIOLOGY 208 Constructionist & Interactionist Persp. on Health & Illness (5 Units) Winter

Instructor(s): Stacy Torres
Prerequisite(s): None.

Restrictions: Doctoral students in any field; other students with instructor

approval only.

Activities: Seminar, Project, Discussion

This course examines the relationship of social class, ethnic identification, group membership, family structure, occupation, and lifestyle to health and illness, and therapeutic interaction of lay persons and health professionals.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

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Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SOCIOLOGY 210 Proseminar in Health Policy (1 Units) Winter

Instructor(s): Susan Chapman
Prerequisite(s): none

Restrictions: none

Activities: Seminar

Seminar to extend knowledge of the varied scope of health policy research and analysis. The focus will be on specific policy research, analysis and implementation strategies.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### SOCIOLOGY 212A Sociological Theory: Classical (5 Units) Fall

*Instructor(s):* Howard Pinderhughes Prerequisite(s): Doctoral students only.

Restrictions: none

Activities: Lecture, Seminar, Discussion

Course examines and evaluates classical and recent contributions to sociological theory. The main objective is the generation of a critical capacity with respect to received theory in both its formal and substantive varieties.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SOCIOLOGY 212B Sociological Theory: Contemporary (5 Units) Winter

Instructor(s): Janet Shim
Prerequisite(s): none

Restrictions: must be a doctoral student

Activities: Lecture, Seminar, Discussion

Course examines and evaluates contemporary contributions to sociological theory. The main objective is the generation of a critical capacity with respect to received theory in both its formal and substantive varieties.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### SOCIOLOGY 212C Sociological Theory: Symbolic Interactionism (5 Units) Spring

Instructor(s): Jennifer James

Prerequisite(s): S212AB or permission of instructor.

Restrictions: none

Activities: Lecture, Seminar, Discussion

Course consists of readings and discussions on interactionist theory in sociology, with emphasis on the origins and development of the Chicago School of Sociology, as well as an examination of the link between philosophy of pragmatism and interactionism.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **SOCIOLOGY 215 Dissertation Proposal Seminar (1** Units) Spring

Instructor(s): Kristen Harknett Prerequisite(s): none

Restrictions: Sociology students who are finishing/finished with their coursework and are in the process of writing their dissertation proposals

Activities: Seminar

This course provides a positive and interactive forum where students writing their dissertation proposals can meet to discuss their proposals, their progress, and any challenges they may experience along the way. Meetings are student centered and focus on skills helpful in completing the dissertation proposal in a timely manner.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes Repeat course for credit? No

#### SOCIOLOGY 221 Qualifying Examination (1-8 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Completion of preliminary examinations.

Restrictions: 3rd year and beyond Sociology Students

Activities: Independent Study

Course will offer preparation for the specialty area qualifying examination and/or prepare the student to successfully advance to candidacy status.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### SOCIOLOGY 233 Sociology of Aging (2 Units) Spring

Instructor(s): Stacy Torres Prerequisite(s): None.

Restrictions: None.

Activities: Seminar, Discussion

Course examines the sociology of aging including a review of theoretical perspectives, current and historical trends in aging, factors related to the aging process, effects of aging on individuals and families, and formal and informal service systems for an aging population.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **SOCIOLOGY 235** The Policy Process: Examples from **Tobacco Control (2-3 Units) Winter**

Instructor(s): Stella Bialous Prerequisite(s): none

Restrictions: none

Activities: Lecture, Seminar, Project

Focuses on developing students understanding of key issues in and evolution of tobacco control policies in the US and globally. Lectures and readings in the history of tobacco control, policies to address tobacco use and addiction. Prepares students to engage in weekly discussions and prepare case studies of tobacco control policies. Will help students draw lessons from tobacco control policy development and implementation that are applicable to other health policy arenas.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### SOCIOLOGY 236 Race/Class Factors in Health Care **Delivery (3 Units) Fall**

Instructor(s): Howard Pinderhughes Prerequisite(s): Consent of instructor

Restrictions: none

Activities: Seminar, Discussion

Course examines racial and class membership impact on access to health care services, variations in the quality of those services, and how professional and subprofessional roles in the health care system are organized along racial and class lines.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### **SOCIOLOGY 237 Proposal Preparation Seminar (1 Units) Winter**

Instructor(s): Kristen Harknett Prerequisite(s): none

Restrictions: This course is for Sociology students who are currently in their first year, and who will be pursuing the S285 qualitative methods course in their second year

Activities: Lecture

This course provides a positive and reflexive forum where students pursuing the S285 qualitative methods course can meet to discuss their proposals, progress and challenges. Meetings are student-centered and focus on skills helpful in developing a successful pilot project proposal and preparing for the qualitative research ethics course. This seminar will facilitate a supportive and informative environment for student-to-student discussion.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### SOCIOLOGY 245 Gender, Race & Coloniality in Science. **Technology & Medicine (3 Units) Spring**

Instructor(s): Janet Shim Prerequisite(s): none

Restrictions: none

Activities: Seminar

Course is a study of historical and contemporary issues in the social construction of biological and medical sciences, epistemological problems, and feminist perspectives. Focus is on impact of structural inequalities by race, gender, coloniality and other dimensions on scientific work and constructions of human and social differences.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course: No** 

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SOCIOLOGY 246 Communications & Policy Leadership (3 Units) Winter

Instructor(s): Susan Chapman
Prerequisite(s): None.

Restrictions: None.

Activities: Lecture

Course focuses on developing students' skills in various types of policyrelevant communications and leadership across different policy and public health venues.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SOCIOLOGY 248 Group Independent Study (1-4 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: Consent of instructor.

Activities: Lecture, Independent Study, Discussion

Groups of two or more students select special problems to investigate on a collaborative basis. These studies may be conducted through readings, the collection or analysis of empirical data, or the development of conceptual analysis or of methodologies.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory) **Graduate Division course**: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes
Repeat course for credit? No

### SOCIOLOGY 248.01 Group Independent Study - Section 01 (1-4 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: Consent of instructor.

Activities: Lecture, Independent Study, Discussion

Groups of two or more students select special problems to investigate on a collaborative basis. These studies may be conducted through readings, the collection or analysis of empirical data, or the development of conceptual analysis or of methodologies.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

### SOCIOLOGY 248.02 Group Independent Study - Section 02 (1-4 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: Consent of instructor.

Activities: Lecture, Independent Study, Discussion

Groups of two or more students select special problems to investigate on a collaborative basis. These studies may be conducted through readings, the collection or analysis of empirical data, or the development of conceptual analysis or of methodologies.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? Yes

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### **SOCIOLOGY 248.03 Group Independent Study - Section** 03 (1-4 Units) Fall, Winter, Spring

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: Consent of instructor.

Activities: Lecture, Independent Study, Discussion

Groups of two or more students select special problems to investigate on a collaborative basis. These studies may be conducted through readings, the collection or analysis of empirical data, or the development of conceptual analysis or of methodologies.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

#### SOCIOLOGY 249 Individual Independent Study (1-4 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: Consent of instructor.

Activities: Independent Study, Discussion

Students select special problems to investigate on an individual or collaborative basis. These studies may be conducted through readings, the collection or analysis of empirical data, or the development of conceptual analysis or of methodologies.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

#### **SOCIOLOGY 251 Professional Development Seminar (1** Units) Fall, Spring

Instructor(s): Erin McCauley Prerequisite(s): none

Restrictions: none

Activities: Seminar

This course seeks to unveil the hidden curriculum of academia. Students will prepare for careers in Sociology through direct instruction on the core professional areas, with an emphasis on the practical skills of publishing, attending conferences, grant writing, teaching, networking, and navigating the job market.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? Yes

#### SOCIOLOGY 260 Policy and Politics of Health (5 **Units)** Spring

Instructor(s): Stacy Torres, Jennifer James

Prerequisite(s): none

Restrictions: none

Activities: Seminar, Project, Discussion

Course examines health care policy and politics in terms of historical and contemporary issues related to access, quality, and cost. Organizational, financing, and labor market issues are included, along with strategies for social change.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SOCIOLOGY 272 Dissertation Writing Seminar (1-2 Units) Fall, Winter

Instructor(s): Stacy Torres
Prerequisite(s): none

Restrictions: PhD Students

Activities: Seminar, Workshop

Course addresses logic of research design and execution for students. Clarification of research question, delineation of work plan, and orientation to relevant theoretical literature or empirical data available.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SOCIOLOGY 273 Fellowship and Grant Writing in the Social Sciences (2 Units) Spring

Instructor(s): Kristen Harknett, Janet Shim

Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture, Workshop

Course will introduce students to a range of fellowship and grant opportunities appropriate for graduate students in the social sciences; orient students on common components of fellowship and grant proposals; and guide students in developing their skills in the craft of fellowship and grant writing. This class will include lecture, discussion, and workshopping components. We will also incorporate presentations from outside speakers with experience with particular fellowship or grant mechanisms.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

### SOCIOLOGY 284 Health Care Economics (4 Units) Winter

Instructor(s): Ulrike Muench
Prerequisite(s): none

Restrictions: none

Activities: Seminar, Project

Course examines basic economic theory as applied to the health care sector. This will include the structure of health care service and labor markets and the analysis of critical economic and cost issues relevant to public policy.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### SOCIOLOGY 285A Qualitative Methods I (5 Units) Fall

Instructor(s): Stacy Torres, Heather Leutwyler

Prerequisite(s): None

Restrictions: Second-year doctoral students.

Activities: Seminar, Fieldwork, Discussion

Course reviews many of the types of qualitative research methods, emphasizing assumptions, approaches. Focus on design, entree, ethics, data-gathering techniques (interviewing, observing), data recording and management. Introduction to data analysis. 2-part course, concluding with 285B. Cross-listed with NURSING 285A

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

**Course Grading Convention:** Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SOCIOLOGY 285B Qualitative Methods II (5 Units) Winter

Instructor(s): Stacy Torres, Heather Leutwyler

Prerequisite(s): S285A

Restrictions: Second-year doctoral students.

Activities: Seminar, Fieldwork, Discussion

Course compares and contrasts modes of qualitative analysis. Examines issues in establishing plausibility, credibility, adequacy. Intensive data analysis and examination of the problems of presentation of findings with focus on questions of authority and preparation of text. 2-part course, beginning with SOCIOLOGY 285A. Cross-listed with NURSING 285B.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SOCIOLOGY 289A Advanced Quantitative Research Methods I (4 Units) Fall

Instructor(s): Kristen Harknett

Prerequisite(s): N209 and N212 or equivalent

Restrictions: Doctoral students only.

Activities: Lecture

Course addresses theoretical basis of advanced quantitative methods. Fundamental issues of causality and design issues pertinent to causality are addressed using randomized clinical trials and models for experimental designs. Methods of sampling and issues in data collection and measurement are explored.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SOCIOLOGY 289B Advanced Quantitative Research Methods II (5 Units) Winter

Instructor(s): Kelsey Holt
Prerequisite(s): S289A

Restrictions: S289A and Doctoral students only

Activities: Lecture, Lab skills

The second course in a two-quarter series provides a pratical understanding of the statistical procedures including logistic regression, repeated measures, survival analysis, latent variables and structural equation modeling, and cost effectiveness analysis. Attention is given to how and when to use each, how to diagnose and adjust to violations of the functional form and other assumptions of these procedures, and how to interpret computer output.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SOCIOLOGY 292 Innovation & Critical Perspectives in Social Sciences (1 Units) Fall, Winter

Instructor(s): Erin McCauley
Prerequisite(s): none

Restrictions: none

Activities: Lecture, Seminar

This course complements the Innovation and Critical Perspectives in Social Sciences Speaker Series and seeks to expose students to cutting-edge research in the discipline. The course consists of attending research presentations by internal and external researchers and facilitating and participating in discussions of the presented research.

School: Nursing

**Department:** Social And Behavioral Sciences

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? Yes

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SOCIOLOGY 299 Dissertation (0 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Advancement to candidacy and permission of the graduate adviser.

Restrictions: Students must be ATC to enroll

For graduate students engaged in writing the dissertation for the PhD degree.

School: Nursing

**Department: Social And Behavioral Sciences** 

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### **Surgery (SURGERY)**

### SURGERY 110 Surgery Core Clerkship (3-12 Units) Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin
Prerequisite(s): Third-year standing.

Restrictions: UCSF medical students only.

Activities: Seminar, Clinical

Students will treat and follow-up patients when they are admitted to the surgical service. Students are expected to take calls once a week and participate in team rounds, in clinics, and in the operating room. Students will work both in the inpatient service and the outpatient clinic. Students are expected to do work-ups on the patients who present with acute surgical illness.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory), In Progress (IP, SP/UP) grading allowed

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### SURGERY 130.01 CIEx - Plastic Surgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): David Young
Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will join the clinical team to provide care for Plastic Surgery patients in the operating room, hospital, and outpatient setting.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

### SURGERY 130.02 CIEx - Colorectal Surgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Mika Varma, Hueylan Chern

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is a 2-week immersive experience in colorectal surgery, particularly designed for Parnassus Integrated Student Clinical Experience (PISCES) students.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SURGERY 130.03 CIEx - Anorectal Diseases and Treatment (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Mika Varma, Hueylan Chern

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Anorectal complaints are common among patients of all ages in all clinical settings. This elective provides opportunities for students to learn common anorectal diseases and observe and participate in anorectal exams and office procedures.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# SURGERY 130.04 CIEx - Vascular and Podiatry Elective - VAMC-SF (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Warren Gasper
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will have opportunities to recognize common diagnoses in vascular medicine, surgery and podiatric practice, observe common procedures, and compose treatment plans for these common conditions.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# SURGERY 130.05A CIEx - Surgical Apprenticeship - General Surgery (1.5-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students may choose from one of the following services: Transplant, General Surgery, or Breast Surgery. Students will work exclusively with a faculty member, with the main focus in the clinical setting.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 130.05B CIEx - Surgical Apprenticeship - Breast (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Rita Mukhtar Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be enrolled in Breast Surgery, where they will work exclusively with a faculty member, with the main clinical focus in the OR, clinic, and tumor board.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SURGERY 130.05C CIEx - Surgical Apprenticeship - Transplant (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Garrett Roll, Shareef Syed

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be enrolled in Transplant Surgery, where they will work exclusively with a faculty member, with the main clinical focus in the OR, tumor board, organ selection committee, and organ procurement runs.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# SURGERY 130.05D CIEx - Surgical Apprenticeship - Thoracic (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Johannes Kratz
Prerequisite(s): none

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be enrolled in Thoracic Surgery, where they will work with a faculty member and team, with the main clinical focus in the OR, clinic, and tumor board.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 130.06 CIEx - Vascular Surgery - UCSF Parnassus (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Michael Conte
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course will provide an overview of the care and treatment of patients on the Vascular Surgery Service. Students will observe Vascular Faculty and Fellows in both out-patient and in-patient environments, as well as the operating room.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 130.07 CIEx - Innovation in Cardiac Surgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Tobias Deuse
Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This collaboration with several programs in Cardiology will expose students to patients in an inpatient setting, provide a chance to see both open surgical and transcatheter procedures, and a comprehensive view of state-of-the art cardiac care.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

### SURGERY 130.08 CIEx - Endocrine Surgery (3 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Wen Shen Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Each student will be paired with 2-3 endocrine surgeons and gain experience in the outpatient, inpatient, operating room, and tumor board setting. It will provide an integrated view on disciplines approaching complex endocrine diseases.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# SURGERY 130.09 CIEx - Kidney Transplant Surgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Shareef Syed, Chris Freise

Prerequisite(s): None

Restrictions: Medical students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This course is an opportunity for medical students to experience a multidisciplinary field. Students will gain insights into the surgical, medical, radiologic and pathologic aspects of kidney transplant surgery.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 130.10 CIEx - Surgical Skills Coaches Training (3 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Hueylan Chern, Merisa Piper Prerequisite(s): Surgery 110 Core Clerkship

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will spend the first week in the surgical skills center learning and practicing knot tying, suturing and laparoscopic techniques to achieve competency in the simulation setting. They will then spend the second week in the OR.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 130.11 CIEx - Treatment of Breast Cancer (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Jasmine Wong

Prerequisite(s): Surgery 110 Clerkship

Restrictions: 3rd year student in good academic standing.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This integrative CIEx will allow students to experience and better understand how surgeons and physicians work together to treat breast cancer in a multi-disciplinary fashion. The student will have a clear schedule rotating between clinic and OR.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# SURGERY 130.12 ClEx - Pediatric Surgery (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Lan Vu
Prerequisite(s): no

Restrictions: Medical Students in Foundations 2.

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. This is a 2-week immersive experience in pediatric surgery.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 130.28 CIEx - Surgery Breast Oncology - Fresno (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Ibironke Adelaja

Prerequisite(s): All UCSF students must contact Linda Alvarez for enrollment (Armelinda.Alvarez@ucsf.edu) to initiate CIEx process at Fresno.

Restrictions: Foundations 2 students

Activities: Seminar, Clinical

The Bridges Curriculum CIEx, which provide medial students in F2 opportunities to broaden/enhance their professional development in health care settings different from those of their core clerkships. 2 weeks on Surgical Oncology introducing students through integrated, multidisciplinary rotation that replicates the practical experience in management of breast disease. Components to include surgery, medical radiation oncology, pathology, breast imaging, tumor board and didactic lectures.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? No

#### SURGERY 130.29 CIEx - Integrative Multidisciplinary Endocrine Neoplasia (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Sanziana Roman, Wen Shen

Prerequisite(s): N/A

Restrictions: Foundations 2 students.

Activities: Clinical

The Bridges Curriculum CIEx provides medical students in F2 opportunities to broaden/enhance their professional development in health care settings different from those of their core clerkships. This integrative CIEx will allow students to understand better how surgeons and physicians work in a multidisciplinary fashion in a disease-based program that is tailored to give patients the best possible care. The student will have exposure to endocrine neoplasia patient care.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.01B Advanced General Surgery - Colorectal (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Mika Varma

Prerequisite(s): Surgery 110, Medicine 110

Restrictions: None

Activities: Clinical, Independent Study, Workshop

Clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of colorectal surgery; hands-on experience in the operating room, hospital floors, and clinic. Students will participate in pre/post operative care of patients with a wide range of disease of the colorectal system including colon, anal and rectal cancer, inflammatory bowel disease, anorectal diseases, and pelvic floor disease.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

#### SURGERY 140.01C Advanced General Surgery -Surgical Oncology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Kimberly Kirkwood

Prerequisite(s): Surgery 110 and Medicine 110

Restrictions: 1 student per block.

Activities: Clinical, Independent Study

Provides intensive exposure to the broad spectrum of conditions encountered in the practice of surgical oncology; extensive experience in the operating room, ward, intensive care unit, and clinic. Students participate in pre/postoperative care of patients with a wide range of oncologic disease processes.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.01E Advanced General Surgery - Breast (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Cheryl Ewing

Prerequisite(s): Medicine 110 and Surgery 110.

Restrictions: None.

Activities: Clinical, Independent Study, Project

This clerkship provides an in-depth, comprehensive experience in the diagnosis and surgical treatment of patients with both benign breast disease and breast cancer. Both inpatient and outpatient care will be important components of breast disease, the importance of the preoperative evaluation of patients and establishment of an evidence-based approach to breast care will be integrated into the curriculum.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### SURGERY 140.01F Advanced General Surgery -Highland Hospital - AHS (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Lara Senekjian

Prerequisite(s): Surgery 110 and Medicine 110.

Restrictions: None

Activities: Clinical, Independent Study

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of general surgery. This clerkship is structured so the student will serve as acting intern on the general surgery service and participate in the pre-operative evaluation, intraoperative management, and post operative care of surgical patients.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.01G Advanced General Surgery - GI / General (Red) (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin

Prerequisite(s): Medicine 110 and Surgery 110

Restrictions: None

Activities: Clinical, Conference

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of General Surgery (Hepatobiliary, Foregut, Beriatric and Endocrine) with hands-on experience in operating room, hospital floor (including ICU), clinic settings and in the evaluation of ER patients. The clerkship is structured so the students will participate in the pre and post operative care of patients.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SURGERY 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin

Prerequisite(s): Core curriculum in basic sciences and Medicine 110 or Surgery 110

Restrictions: none

Activities: Clinical

Clinical clerkship in approved hospitals in other universities by special arrangement and approval of the director for medical education of the department and the dean.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Matthew Lin

Prerequisite(s): MEDICINE 110, SURGERY 110

Restrictions: None
Activities: Clinical

Clinical clerkship in approved hospitals in other universities by special arrangement and approval of the director for medical education of the department and the dean.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ Letter \ Grade, \ P/NP \ (Pass/Not \ Pass) \ or \ S/U$ 

(Satisfactory/Unsatisfactory) Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### SURGERY 140.04 Advanced Vascular Surgery (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Michael Conte

Prerequisite(s): Medicine 110, Surgery 110.

Restrictions: None

Activities: Clinical, Independent Study

Intensive exposure to the broad spectrum of vascular disease presentations encountered in the practice of vascular surgery. Hands-on experience in the operating room, hospital ward/ICU, and outpatient clinic as part of the team. Students will participate in pre and post-operative care of patients, consultations, evaluation and management of vascular conditions and treatment approaches (including vascular medicine, open and endovascular surgery).

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.07 Non-Invasive Vascular Laboratory (3 Units) Fall, Winter, Spring, Summer

Instructor(s): Warren Gasper
Prerequisite(s): Surgery 110

Restrictions: Restricted to 1 UCSF fourth year medical student per two weeks.

This two-week elective will offer medical students the opportunity to experience the UCSF non-invasive vascular laboratory and build a solid foundation in routine non-invasive studies performed in the evaluation of vascular disease. Students will participate in conducting and interpreting ultrasound studies of arterial and venous systems of the abdomen, limbs, head and neck, and brain and will attend didactic sessions hosted by the vascular surgery service, including Vascular Grand Rounds.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# SURGERY 140.08 Advanced Endocrine Surgery (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Wen Shen

Prerequisite(s): SURGERY 110, MEDICINE 110

Restrictions: none
Activities: Clinical

This clerkship provides an in-depth experience in Endocrine Surgery - specifically, the workup and management of surgical disorders of the thyroid/parathyroid/adrenal glands and the endocrine pancreas. Students will participate in the operating room, follow patients, and attend multiple outpatient clinics gaining hands-on experience in the diagnosis and treatment of patients with endocrine surgical disorders. Students expected to prepare a case presentation with accompanying discussion.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.10 Advanced Cardiothoracic Surgery (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Tobias Deuse

Prerequisite(s): SURGERY 110\r\n\r\nMEDICINE 110

Restrictions: None
Activities: Clinical

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of cardiothoracic surgery with extensive experience in the OR, ward, clinic and ICU. Students will participate in the care of patients with acquired cardiovascular and thoracic disease, including coronary artery disease, valvular heart disease, diseases of the great vessels, and thoracic oncology w/ exposure to thoracic transplantation (heart/lung), ECMO and ventricular assist devices.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes Repeat course for credit? No

### SURGERY 140.12 Advanced Plastic & Reconstructive Surgery (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Scott Hansen
Prerequisite(s): Surgery 110

Restrictions: 4th year medical student standing.

Activities: Clinical, Independent Study, Project

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of plastic surgery. There is handson experience in the operating room and clinic. Students will participate in the care of patients with congenital anomalies, traumatic deformities, acquired defects requiring reconstruction including free tissue transfer and hand surgery, and patients choosing to have elective surgery.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.14 Advanced Surgical Critical Care - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein Prerequisite(s): Surgery 110

Restrictions: 4th year standing.

Activities: Clinical, Independent Study

Provides exposure to critical surgical illness in a busy ICU setting. The student serves as an acting intern, and will involve themselves in the pre, intra, and post-operative management of patients on the service. Students will learn basic principles for managing critically ill surgical patients, including ventilator management, invasive hemodynamic monitoring, invasive bedside procedures, mechanical ventilation, nutritional therapy, renal replacement therapy and ethical issues.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SURGERY 140.15 Burn, Plastic and Hand Surgery - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein
Prerequisite(s): Surgery 110

Restrictions: 4th year standing.

Activities: Lecture, Clinical

Provides students exposure to the burned patient at a regional burn center. Students will serve as an acting intern, and will be expected to have hands-on participation in care of patients in the operative, ward and intensive care unit settings. During their rotation, students will learn the principles of burn resuscitation, operative and non-operative burn wound management, as well as gain exposure to surgical critical care as it pertains to burn surgery.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# SURGERY 140.16 Advanced Pediatric Surgery and Trauma (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Aaron Jensen

Prerequisite(s): Surgery 110 and Medicine 110

Restrictions: none
Activities: Clinical

This clerkship provides an intensive exposure to the broad spectrum of conditions encountered in the practice of pediatric surgery with hands-on experience in the operating room, clinic, and trauma bay. The clerkship is structured so the students will participate in the care of patients with congenital anomalies, childhood tumors and other acquired childhood illnesses including traumatic injury. This course aims to incorporate the student as a team member in pediatric surgery.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.17 Advanced Pediatric Surgery (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Lan Vu

Prerequisite(s): Surgery 110 and Medicine 110

Restrictions: 1 Student per block.

Activities: Clinical, Independent Study, Project

Intensive exposure to the broad spectrum of conditions encountered in the practice of pediatric surgery with hands-on experience in the operating room and clinic. Students will participate in the care of patients with congenital anomalies, childhood tumors and other acquired childhood illnesses. This course aims to incorporate the student as a team member in Pediatric Surgery.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### SURGERY 140.18 Advanced Solid Organ Transplantation (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Garrett Roll

Prerequisite(s): Medicine 110, Surgery 110

Restrictions: 1 student per block.

Activities: Clinical, Independent Study

Intensive exposure to diseased and live donor kidney, liver and pancreas transplantation. Students participate in the pre-operative evaluation and management, intraoperative management, and post-operative care (including immune monitoring) of transplant recipients and donors. Participate on clinical rounds, attend teaching conferences and seminars. The student will scrub in on organ donor operations as well as organ transplants.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SURGERY 140.19 Advanced General Surgery - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein
Prerequisite(s): Surgery 110

Restrictions: 4th year standing.

Activities: Clinical, Independent Study

Provides an intensive exposure to a busy combined emergency general surgery (EGS) and trauma service, with emphasis on EGS. Students will serve as an acting intern, and learn to manage inpatients on the wards and step down unit, as well as evaluate new EGS patients via consultations from the emergency room and inpatient wards. Students are also expected to involve themselves in pre, intra, and post-operative management of patients on the service.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# SURGERY 140.20 General Surgery Oncology - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein

Prerequisite(s): Completion of core clerkship in Surgery

Restrictions: 4th Year Medical Students

Activities: Lecture, Clinical

Provides exposure to a busy combined general, endocrine, hepatobiliary and surgical oncology service. Students will gain exposure to a wide range of surgical oncologic disease, including endocrine, hepatobiliary, and breast cancers. They will also gain exposure to management of advanced hernias, and benign endocrine, hepatic, and pancreatic surgical disease. They will participate in the pre, intra, and postoperative care of these complex patients in both inpatient and outpatient settings.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.21 Advanced Trauma Surgery - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein, James Davis

Prerequisite(s): Surgery 110

Restrictions: 4th year standing.

Activities: Clinical, Independent Study

Provides exposure to critically injured patients at a busy Level 1 trauma center. Students will learn to apply ATLS principals to manage injured patients presenting to the ED, and will participate in patients' subsequent intra and post-operative care. Students will learn basic principles for managing critically injured patients in the ICU, including but not limited to vent and, intracranial hypertension management, invasive hemodynamic monitoring, invasive bedside procedures, and ethical issues.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.22 Advanced Trauma & General Surgery (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Andre Campbell

Prerequisite(s): Surgery 110 and Medicine 110

Restrictions: None

Activities: Clinical, Independent Study

Intensive exposure to the broad spectrum of conditions encountered in the practice of general and trauma surgery at a Level 1 Trauma Center with hands-on experience in ED, operating room, hospital floor (including ICU), and clinic settings. Students will participate in the pre- and post-operative care of patients with a wide range of trauma and acute surgical emergencies.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SURGERY 140.23 Advanced Surgical Critical Care (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Lara Senekjian

Prerequisite(s): Completion of all third year clinical clerkships.

Restrictions: Limited to two students per block.

Activities: Clinical, Independent Study

Clinical activity full time. 4th year student will be an acting intern on the surgical ICU Service and participate in all aspects of caring for surgical patients in the ICU.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

## SURGERY 140.24 Advanced Vascular Surgery - Fresno (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Jordan Lilienstein Prerequisite(s): Surgery 110

Restrictions: n/a
Activities: Clinical

Provides students with exposure to the broad spectrum of conditions found in vascular surgery. The students will serve as an acting intern on the vascular surgery service. Hands-on participation by the student is expected in the operating room, wards, intensive care unit and ambulatory care settings. Students will participate in the pre, intra, and postoperative care of patients, and will be introduced to the full range of vascular therapies, including open and endovascular techniques.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 140.25 Surgical Internship Experience on Endocrine Surgery (6 Units) Fall, Winter, Spring

Instructor(s): Sanziana Roman

Prerequisite(s): MEDICINE 110, SURGERY 110, plus at least one other SURGERY 140 elective.

Restrictions: This course is restricted to students with plans to pursue a surgical residency.

Activities: Clinical

This clerkship provides an in-depth experience for students who want to prepare for life as a surgery intern- specifically, the day-to-day management of patients, writing orders, working with nursing staff, taking call, participating in the operating room, following patients, and attending multiple outpatient clinics. Includes hands-on experience in the diagnosis and treatment of patients with endocrine surgical disorders of the thyroid/parathyroid/adrenal glands and the endocrine pancreas.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 150.01 Research in Surgery (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Amar Nijagal

Prerequisite(s): Consent of instructor.

Restrictions: none

Activities: Fieldwork, Project, Lab science

Opportunities for research in one of the departmental laboratories by arrangement with the instructor.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# SURGERY 160.02 OR Assist: Beginner Surgical Skills (1 Units) Winter, Spring

Instructor(s): Matthew Lin
Prerequisite(s): none

Restrictions: none

Activities: Lecture, Clinical

Operating Room (OR) Assist is an elective to provide medical students with an opportunity to participate in surgical procedures at UCSF affiliated Operating Rooms. Students will follow the patient from the preoperative setting, into the intraoperative theater, and into the postoperative setting. Students will be expected to sign up for a minimum of three evening or weekend shifts in the Operating Room resulting in a total of 22 clinical hours.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# SURGERY 160.03 OR Assist: Clinical Experience (1 Units) Spring

Instructor(s): Matthew Lin

Prerequisite(s): None, SURGERY 160.02

Restrictions: none

Activities: Lecture, Clinical

Operating Room (OR) Assist: Clinical Experience is an elective that provides medical students with the opportunity to participate in surgical procedures at UCSF affiliated operating rooms. Students will be paired with a surgical mentor and scrub in on a minimum of 3 surgeries. Review sessions on surgical skills, gowning, gloving, sterile procedures and operating room etiquette will be provided.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 160.07 Surgery Donor Runs (1 Units) Fall, Winter, Spring, Summer

*Instructor(s):* Garrett Roll, Shareef Syed Prerequisite(s): None.

Restrictions: None.

Activities: Clinical

The medical student will be invited to participate in donor runs for retrieval of intra thoracic and intra abdominal organs for transplant. The student will scrub in on organ donor operations. Anatomy is an important component of medical student education. Though partially addressed by exposure to cadavers, the dynamic interaction with brain dead heart beating donors is a much more realistic opportunity for learning.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

 $\label{eq:may-students} \mbox{May students in the Graduate Division (i.e.\ pursuing\ Master\ or\ PhD)}$ 

enroll in this course? No Repeat course for credit? No

### SURGERY 160.08 The Organ Transplant Experience (1.5 Units) Fall, Winter, Spring, Summer

Instructor(s): Garrett Roll, Shareef Syed

Prerequisite(s): None.

Restrictions: None.

Activities: Lecture, Clinical

This elective offers medical students the opportunity to learn about solid organ transplantation, and how various types of medical providers impact the care of donors and recipients. The elective includes a lecture series (approximately six lectures) about solid organ transplant and organ procurement. Students enrolled in the elective are encouraged to attend at least one organ procurement experience with the thoracic and/or abdominal UCSF organ procurement teams.

School: Medicine

Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

### SURGERY 160.10 Cardiothoracic and Vascular Interventions (1-1.5 Units) Fall

Instructor(s): Shant Vartanian Prerequisite(s): N/A

Restrictions: N/A

Activities: Lecture, Clinical

The course will introduce students to the anatomic and physiologic correlations associated with the clinical syndromes of peripheral vascular disease, cerebrovascular diseases, as well as other specific topics in cardiology. Through a multi-disciplinary approach (vascular surgery, interventional radiology and interventional cardiology), endovascular and surgical approaches to the treatment of these diseases will be highlighted, and critical research questions and methodologies will be explored.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 160.11 Intermediate Surgical Training for Medical Students (1 Units) Fall, Winter

Instructor(s): Matthew Lin

Prerequisite(s): None, SURGERY 160.02

Restrictions: None

Activities: Lecture, Workshop

Students who completed the OR Assist: Beginner Surgical Skills (160.02) are invited to practice their basic surgical knot tying and suturing skills and their advanced laparoscopic knot tying skills. Students will attend five classes in the Surgical Skills Lab taught by faculty and residents in the surgery department and are expected to practice outside of these sessions with their own equipment. A final assessment will be held at the completion of the course.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 160.12 Advanced Surgical Training for Medical Students (1 Units) Winter

Instructor(s): Matthew Lin

Prerequisite(s): OR Assist-Surgical Training for Medical Students (Surgery 160.02) AND Intermediate Surgical Training for Medical Students (Surgery 160.11)

Restrictions: N/A

Activities: Clinical, Independent Study

Medical students who completed Surgery 160.02 AND Surgery 160.11 are invited to build upon the skills learned in previous electives such as knot tying, suturing, cautery, and laparoscopy. Students will attend four sessions in the Surgical Skills Lab taught by attendings and residents in the surgery department, and are expected to practice outside of these sessions with their own equipment. Students will receive feedback from attendings to help prepare for clerkships and careers in surgery.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### SURGERY 160.14 Introduction to Aerospace Medicine (1 Units) Fall, Winter

Instructor(s): Sonja Schrepfer Prerequisite(s): N/A

Restrictions: Only students from the School of Medicine

Activities: Lecture

This course will introduce medical students to the fields of aerospace medicine and medicine in extreme environments, including reviewing the venues for training in aerospace medicine, clinical problems related to spaceflight, and critical research areas for future space exploration. One-hour seminars will be hosted by UCSF resident and visiting faculty members with expertise in aerospace medicine.

School: Medicine
Department: Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

#### **SURGERY 160.15 Exploring Plastic Surgery (1** Units) Fall

Instructor(s): Matthew Lin, Scott Hansen

Prerequisite(s): None

Restrictions: None

This lunch-time elective will introduce students to the various subspecialties within the field of Plastic and Reconstructive Surgery. Faculty members will speak about their clinical work as well as research projects. At the end of the elective, we will host a panel of residents to discuss the process of applying to residency in Plastic Surgery.

School: Medicine **Department:** Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### **SURGERY 160.16 OASIS Clinic Care Elective (1** Units) Fall, Winter, Spring

Instructor(s): Scott Hansen Prerequisite(s): None

Restrictions: None

Activities: Clinical

The OASIS Clinic Longitudinal Elective is housed within the OASIS Clinic at ZSFG. This is an in-person experience where students will be able to hone their clinical skills while interacting with low income and medically underserved patients. With the direct supervision of either the attending or clinical staff, medical students will be able to do medical intake, help perform minor procedures such as I&D of wound abscesses, and excisions of subcutaneous masses and foreign bodies.

School: Medicine **Department:** Surgery

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

#### SURGERY 198 Supervised Study (1-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Staff

Prerequisite(s): Consent of instructor.

Restrictions: None

Activities: Independent Study, Project

Library research and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine **Department:** Surgery

May the student choose the instructor for this course? Yes Does enrollment in this course require instructor approval? Yes

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### **Urology (UROLOGY)**

#### UROLOGY 130.01 CIEx - Urology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Alan Shindel Prerequisite(s): None

**Restrictions: Medical Students in Foundations 2** 

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will attend clinic and see patients with the attending or the chief resident. Students will also scrub in OR cases and learn to open and close incisions, perform cystoscopy, basic laparoscopic, and robotic surgical skills.

School: Medicine **Department:** Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course: No** Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? No

Repeat course for credit? No

### UROLOGY 130.03 CIEx - Pediatric Urology (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Laurence Baskin, Sara Buckelew

Prerequisite(s): None

Restrictions: Medical Students in Foundations 2

Activities: Clinical

This is a Bridges Curriculum Clinical Immersive Experience (CIEx), which provide medical students in Foundations 2 opportunities to broaden and enhance their professional development in health care settings different from those of their core clerkships. Students will be paired with faculty and work primarily in the clinic and operating room. In addition, students will participate in multidisciplinary patient care conferences and learn the basics of pediatric urology.

School: Medicine
Department: Pediatrics

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

**Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# UROLOGY 140.01 Advanced Inpatient Urology (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Lindsay Hampson Prerequisite(s): Surgery 110

Restrictions: None

Activities: Clinical

This rotation is an advanced clerkship in Urology that is based at UCSF Moffitt Hospital and the UCSF Comprehensive Cancer Center at the Mission Bay campus. Students act as a sub-intern on the service and are actively involved in ward care, operative room procedures, and outpatient clinics. Attending rounds, weekly seminars with residents and a real opportunity to become an active member of the urology team.

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

# UROLOGY 140.02A Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Alan Shindel Prerequisite(s): Surgery 110.

Restrictions: 4th year medical students

Activities: Clinical

Clinical clerkship in off-campus hospitals.

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### UROLOGY 140.02B Off-Campus Clerkship (3-6 Units) Fall, Winter, Spring, Summer

Instructor(s): Alan Shindel
Prerequisite(s): SURGERY 110

Restrictions: 4th-year medical students only.

Activities: Clinical

Clinical clerkship in off-campus hospitals.

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U

(Satisfactory/Unsatisfactory) **Graduate Division course:** No **Is this a web-based online course?** No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# UROLOGY 140.03 Advanced Urology Apprenticeship (6 Units) Fall, Winter, Spring, Summer

Instructor(s): Alan Shindel, Benjamin Breyer Prerequisite(s): 4th year student in good standing

Restrictions: Student's planning to apply to urology residency only

Activities: Clinical

This is an intensive experience working closely with the leadership of the department of urology (chair, program director, and others) using an apprenticeship model. This experience involves time in both the urology clinic and the operating room. It is intended for students who are applying for a residency in urology.

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? Yes Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? No

### UROLOGY 140.05 Urology Selective (1.5-3 Units) Fall, Winter, Spring, Summer

Instructor(s): Alan Shindel

Prerequisite(s): 3rd or 4th year in good academic standing.

Restrictions: None

Activities: Lecture, Clinical

Over a 2-week elective this clerkship insures: 1) exposure to a variety of urologic disorders, 2) consistent exposure to urology MDs, 3) continuity of exposure over the 2 week period, 4) exposure to in-patient, out-patient and operating room activity in urology

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

 $\textbf{Course Grading Convention:} \ P/NP \ (Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pass/Not \ Pass) \ or \ S/U \ (Satisfactory/Pass/Not \ Pass/Not \ Pa$ 

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### UROLOGY 150.01 Research in Urology (3-24 Units) Fall, Winter, Spring, Summer

Instructor(s): Alan Shindel

Prerequisite(s): Must be third- or fourth-year medical student.

Restrictions: None

Activities: Independent Study, Project, Lab science

Research project under the direction of a member of the Department of

Urology.

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? No Repeat course for credit? Yes

### UROLOGY 170.01 Introduction to Urology (1 Units) Fall, Winter, Spring

Instructor(s): Alan Shindel, David Bayne

Prerequisite(s): None

Restrictions: None
Activities: Lecture

This course is an introduction to urology and urological surgery. Students will be exposed to many aspects of urology including: oncology, trauma, reconstruction, pediatrics, infertility, andrology, transgender care, female urology/pelvic medicine, BPH/voiding dysfunction and nephrolithiasis. This lecture series presents patient cases, current research, innovative surgical techniques, and career options in urology. Students who enroll in the course will also get to observe procedures in the OR.

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

# UROLOGY 198 Supervised Study (1-9 Units) Fall, Winter, Spring, Summer

Instructor(s): Alan Shindel

Prerequisite(s): Consent of instructor preceptor and approval of third- and

fourth-year coordinator.

Restrictions: Medical students only

Activities: Independent Study, Project

Focused study and directed reading under supervision of a member of the faculty with the approval of the chairperson of the department.

School: Medicine
Department: Urology

May the student choose the instructor for this course? No Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/

Unsatisfactory)

Graduate Division course: No
Is this a web-based online course? No
Is this an Interprofessional Education (IPE) course? No
May students in the Graduate Division (i.e. pursuing Master or PhD)
enroll in this course? No
Repeat course for credit? Yes

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