

APPLIED AND COMPUTATIONAL MATHEMATICS, POST- MASTER'S CERTIFICATE

Admission Requirements

Applicants who have already completed a master's degree in Applied and Computational Mathematics or a closely related technical discipline are eligible to apply for the Post-Master's Certificate in Applied and Computational Mathematics. It is required that applicants have completed courses equivalent to EN.625.603 Statistical Methods and Data Analysis, and at least one of EN.625.601 Real Analysis or EN.625.609 Matrix Theory in prior graduate coursework (in or out of the prior master's degree). Applicants must also have taken courses equivalent to at least one of the sequences EN.625.717-718 Advanced Differential Equations: Partial Differential Equations and Advanced Differential Equations: Nonlinear Differential Equations and Dynamical Systems, EN.625.721-722 Probability and Stochastic Processes I and Probability and Stochastic Processes II, or EN.625.725-726 Theory Of Statistics I and Theory of Statistics II in their prior graduate studies.

Program Requirements

Five courses must be completed within five years. At least four of the five courses must be from the Applied and Computational Mathematics program and numbered EN.625.680 Cryptography or higher. At least three of these four courses must be at the 700- or 800-level, and at least one of the 700-level courses must be outside of the sequences:

Code	Title	Credits
EN.625.717 & EN.625.718	Advanced Differential Equations: Partial Differential Equations and Advanced Differential Equations: Nonlinear Differential Equations and Dynamical Systems	6
EN.625.721 & EN.625.722	Probability and Stochastic Processes I and Probability and Stochastic Processes II	6
EN.625.725 & EN.625.726	Theory Of Statistics I and Theory of Statistics II	6

Students are allowed to take one mathematically oriented elective course from outside the ACM Program. Courses EN.625.601 Real Analysis, EN.625.603 Statistical Methods and Data Analysis, and EN.625.609 Matrix Theory may not be counted toward the certificate. An independent study (EN.625.800 Independent Study), research project (EN.625.805 Applied and Computational Mathematics Post-Master's Research–EN.625.806 Applied and Computational Mathematics Post-Master's Research), or thesis (EN.625.807 Applied and Computational Mathematics Post-Master's Thesis–EN.625.808 Applied and Computational Mathematics Post-Master's Thesis) may be substituted for one or two of the 700-level courses outside of the 700-level core sequence. The course 625.800 Independent Study may not be used towards the ACM PMC if a student also wishes to count 625.805–806 or 625.807–808 towards the PMC. Only grades of B– or above can count toward the post-master's certificate. Course selections at the 800-level or outside these requirements are subject to advisor approval.