



MS in Computer Engineering

Mathematical Foundations Requirement

Students pursuing an MS in Computer Engineering must also include 6 credits of coursework (**within**, not in addition to, the 45 total required credits) that emphasizes the development of mathematical skills that are required in the area of computer engineering. A list of courses that meet this criterion can be found below. Courses taken to fulfill this requirement that are taken outside of the Department of Electrical and Computer Engineering will automatically be counted as elective courses.

- CS 525: Theory of Computation
- CS 567: Applied Symbolic Computation
- CS 583: Introduction to Computer Vision
- CS 613: Machine Learning
- CS 621: Approximation Algorithms
- CS 623: Computational Geometry
- ECES 511: Fundamentals of Systems I
- ECES 512: Fundamentals of Systems II
- ECES 513: Fundamentals of Systems III
- ECES 521: Probability & Random Variables
- ECES 522: Random Processes & Spectral Analysis
- ECES 523: Detection & Estimation Theory
- ECES 811: Optimization Methods for Engineering Design
- ECET 602: Information Theory and Coding
- OPR 624: Advanced Mathematical Programming
- OPR 992: Applied Math Programming
- Any MATH course at the 500-level or above