

Area Courses Controls

Fundamental Courses

EE 482 Linear Control Systems -or-
AME 451 Linear Control Systems I
4 units

EE 543 Digital Control Systems

4 units EE 482

EE 585 Linear System Theory

4 units EE 441 or EE 510

Mathematical Foundations

EE 503 Probability for Electrical and
Computer Engineers
4 units

EE 510 Linear Algebra for Engineering

4 units

EE 562 Random Processes in
Engineering

4 units EE 503, EE 510

EE 588 Optimization for the Information
and Data Sciences

4 units EE 510

Nonlinear and Robust Control

EE 587 Nonlinear Control Systems

4 units EE 585
EE 482, EE 503

EE 593 Robust Multivariable Control

4 units EE 482
EE 587 EE 585

Stochastic, Decentralized, and Network Control

EE 556 Stochastic Systems and
Reinforcement Learning

4 units EE 503
EE 512

EE 648 Game Theory with Engineering
Applications

4 units
EE 503

EE 649 Stochastic Network Optimization &
Adaptive Learning for Discrete Time Systems

4 units EE 503

EE 652 Low-Power Wireless Networks

3 units EE 450
CSCI 402

Cyber-Physical and Complex Systems

EE 520 Introduction to Quantum
Information Processing

3 units
EE 510

EE 527 Net-Centric Power-System
Control

4 units EE 482, EE 510
EE 585, 593, 562 or 512

EE 539 Engineering Quantum
Mechanics

4 units

EE 554 Cyber-Physical Systems: A
Computing Perspective

4 units

Financial Engineering

EE 512 Stochastic Processes for
Financial Engineering

4 units EE 503, EE 510

EE 518 Mathematics and Tools for
Financial Engineering *

4 units

ISE 563 Financial Engineering *

3 units

* Available to MSFINE majors only

Legend

Grouping

EE 000 Course Title

Course Units Prerequisite Courses
Recommended Prep. Corequisite Courses

This chart shows course relationships

Please check the University Catalogue for specific course details including any recommended preparatory courses and Degree Requirements