

## Area Courses Controls

### Fundamental Courses

**EE 482** Linear Control Systems -or-  
**AME 451** Linear Control Systems  
3 units

**EE 543aL** Digital Control Systems

3 units EE 482

**EE 585** Linear System Theory

3 units EE 510

### Mathematical Foundations

**EE 503** Probability for Electrical and  
Computer Engineers  
4 units

**EE 510** Linear Algebra for Engineering

4 units

**EE 512** Stochastic Processes

3 units EE 503, EE 510

**ISE 520** Optimization Theory and  
Algorithms: Numerical Optimization  
3 units

**EE 562** Random Processes in  
Engineering

4 units EE 503, EE 510

### Robust Multivariable and Nonlinear Control

**EE 587** Nonlinear and Adaptive Control  
3 units EE 482, EE 585

**EE 593** Robust Multivariable Control  
3 units EE 482, EE 585

### Network Control and Optimization

**EE 553** Computational Solution of  
Optimization Problems  
3 units EE 510

**EE 588** Optimization for the Information  
and Data Sciences  
4 units EE 510

**EE 649** Stochastic Network  
Optimization  
3 units EE 503

### Cyber-Physical and Complex Systems

**EE 520** Introduction to Quantum  
Information Processing  
3 units  
EE 503, EE 510

**EE 527** Net-Centric Power-System  
Control  
3 units  
EE 482 EE 521

**EE 539** Engineering Quantum  
Mechanics  
4 units EE 521

**EE 652** Low-Power Wireless Networks  
3 units EE 450  
CSCI 402

### Financial Engineering

**EE 518** Mathematics and Tools for  
Financial Engineering  
4 units

**EE 556** Stochastic Systems and  
Reinforcement Learning  
4 units EE 503  
EE 512

**ISE 563** Financial Engineering  
3 units

### 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