

### Fundamental Courses

**EE 471** Applied Quantum Mechanics for Engineers  
4 units

or

**EE 539** Engineering Quantum Mechanics  
4 units

**EE 506** Semiconductor Physics  
4 units

**EE 570ab** Advanced Electromagnetic Theory  
a:4 units, b:4 units  
a: EE 572 b: EE 570a

or

**EE 572L** Electromagnetic Wave Engineering  
4 units

**EE 578** Computational Electromagnetics for Engineers  
4 units

### Optics and Photonics

**EE 509** Nanophotonics and Metamaterials  
4 units EE 470 or EE 572

**EE 529** Optics  
4 units

**EE 530** Optical Materials, Instruments and Devices  
4 units

**EE 531** Nonlinear Optics  
4 units EE 572

**EE 540** Introduction to Quantum Electronics  
4 units EE 572  
EE 471 or PHYS 438a & b

### Applications

**EE 551** Principles of Radar  
3 units EE 572

**EE 558** Optical Fiber Communication Systems  
3 units

**EE 566** Optical Information Processing  
4 units

**EE 571** Wave Interactions with Random and Inhomogeneous Media  
4 units EE 572

**EE 573ab** Antenna Systems Engineering  
a:4 units EE 572

### Legend

#### Grouping

EE 000 Course Title

Course Units

Recommended Prep.

Prerequisite Courses

Corequisite Courses

This chart shows course relationships

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