

## Graduate Courses Sequences

### Electrophysics

#### **Basic Courses - Taught every year**

EE 5410 - Engineering Electromagnetics  
EE 5430 - Electronic Materials  
EE 5460 – Solid State Devices  
EE 5xxx – Applied Optics and Photonics  
EE 5xxx– Microwave Engineering

#### **Advanced Courses - Taught (perhaps) every other year**

EE 5480 - Advanced MEMs  
EE 5xxx – Modeling of VLSI Interconnections  
EE 5xxx – Antenna Engineering  
EE 5xxx – Computational Electromagnetic Modeling  
EE 5xxx – Techniques of Computer-Aided Circuit Analysis & Design

### Computer Engineering

#### **Basic Courses - Taught every year**

EE 5711 – Research Tools for CpE  
EE 5722 – Computer Networks  
EE 5780 – Advanced VLSI computer-aided design  
EE 57xx – VLSI modeling  
EE 57yy – GPUs

#### **Advanced Courses - Taught (perhaps) every other year**

EE 5723 – Computer and Network Security  
EE 5726 – Embedded Sensor Networks  
EE 5750 – Distributed Embedded Control Systems  
EE 5755 – Fault-tolerant Systems  
EE 5495 – Design of multi-media Systems

## Signals and Systems

### **Basic Courses - Taught every year**

EE 5500 – Probability and Random Signal Analysis  
EE 55xx – State Spaced Based Linear Systems  
EE 5521 – Detection and Estimation Theory  
EE 5527 – Digital Communications

### **Advanced Courses - Taught (perhaps) every other year**

EE 5511 – Information Theory  
EE 55xx – Advanced Imaging Systems  
EE 55xx – Advanced topics in Signal and Image Processing  
EE 55xx – Advanced topics in Communication Theory  
EE 55xx – Linear Optimal Control  
EE 55xx – Radar Systems I  
EE 55xx – Radar Systems II

## Power

### **Basic Courses - Taught every year**

EE 5200 – Advanced Methods in Power Systems  
EE 5221 – Advanced Electric Machinery and Drives  
EE 5295 – Advanced Propulsion Systems for Hybrid Electric Drive Vehicles  
EE 5296 – Advanced Propulsion Systems for Hybrid Electric Drive Vehicles Lab

### **Advanced Courses - Taught (perhaps) every other year**

EE 5220 – Transient Analysis Methods  
EE 5223 – Power System Protection  
EE 5224 – Power System Protection Lab  
EE 5227 – Advanced Power Electronics  
EE 5240 – Computer Modeling of Power Systems  
EE 5250 – Distribution Engineering