

EE Elective courses listed by focus area

**Power & Energy:**

- **EE 4219** Introduction to Electric Machinery and Drives  
  Spring 2017 (not offered spring 2016)
- **EE 4220** Introduction to Electric Machinery and Drives Lab  
  Spring 2017 (not offered spring 2016)
- **EE 4221** Power System Analysis 1  
  Fall
- **EE 4222** Power System Analysis 2  
  Spring
- **EE 5223** Power System Protection  
  Spring or Odd Springs - check schedule of classes
- **EE 5224** Power System Protection Lab  
  Spring or Odd Springs - "
- **EE 5250** Distribution Engineering  
  Spring or Even Springs - check schedule of classes
- **EE 4226** Power Engineering Lab  
  Spring, Summer D(1st week of May)
- **EE 4227** Power Electronics  
  Fall
- **EE 4228** Power Electronics Lab  
  Fall
- **EE 4295** Intro Propulsion Systems for Hybrid Elec Vehicles  
  Fall
- **EE 4296** Intro Propulsion Systems for Hybrid Elec Vehicles Lab  
  Fall

**Photonics:**

- Also See EE Photonics Concentration Requirements (Degree Services – audit)
  - **EE 3090** Geometrical & Wave Optics  
    Fall
  - **EE 3190** Optical Sensing and Imaging  
    Spring
  - **EE 3290** Photonic Material, Devices & Apps  
    Fall 4 cr.
  - **EE 4490** Laser Systems and Applications  
    Spring 4 cr.
  - **EE 4256** Fourier Optics  
    Fall
  - **EE 4290** Optical Communication  
    Spring

**Control:**

- **EE 4219** Introduction to Electric Machinery & Drives  
  Spring
- **EE 4220** Introduction to Electric Machinery and Drives Lab  
  Spring
- **EE 4262** Digital & Non-Linear Control  
  Spring
- **EE 4777** Open-Source 3-D Printing  
  Fall
- **EE 5750** Distributed Embedded Control Systems  
  Spring

**DSP:**

- **EE 4252** Digital Signal Processing and It’s Applications  
  Fall 4 cr.
- **EE 4253** Real-time Signal Processing  
  Spring
- **EE 5522** Digital Image Processing  
  Alternating Springs

**Electronics:**

- **EE 4231** Physical Electronics  
  Spring 2016 (previously offered in falls)
- **EE 4232** Electronic Applications  
  Spring (not offered 2015-16 year)
- **EE 4271** VLSI Design  
  Summer  Fall
- **EE 4240** Introduction to MEMS  
  Alternating Falls 4 cr

**Communication:**

- **EE 5525** Wireless Communications  
  Spring
- **EE 4272** Computer Networks  
  Fall (Co-listing with CS4461)
- **EE 4365** In-Vehicle Communication Networks  
  Spring, Summer

**Electromagnetics:**

- **EE 4411** Engineering Electromagnetics  
  Fall
- **EE 4490** Laser Systems and Applications  
  Spring 4 cr.

**Computer Systems:**

- **EE 4271** VLSI Design  
  Fall
- **EE 4272/ CS4461** Computer Networks  
  Spring (Co-listing with CS4461) QP’s
- **EE 4495** S/H Design of Multimedia Systems  
  Spring (not offered spring 2016) QP’s
- **EE 5496** GPU and Multicore Programming  
  Fall QP’s
- **EE 4735** Embedded System Programming using Sensor Networks & Mobile Robots  
  Spring

Check online descriptions for most current pre-requisites and semester offerings. Plan ahead. See schedules for new offerings.

EE Electives are EE courses that are not specifically required, are lecture-based, and not EE3010, EE3805, EE4000, EE4805, EE3901, EE4901, EE4910. Graduate level EE lecture courses may be used - Instructor/level waiver approval needed to register.

*EE3250 and EE3261 may be used as EE electives for catalog years 2011-12 and earlier.