# EE (Technical) Electives by Semesters Offered - Subject to change

*Check online schedule & catalog for current course information*

## May 2021

### Semester | Course ID | Title | Pre-requisites / Co-requisites(C)
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**Summer** | varies | Check the Summer Schedule of Classes |
**Fall** | EE 3190 | Optical Sensing & Imaging | MA3520 or MA3521 or MA3530 or MA3560
| EE 3373 | Intro. Programmable Controllers | EE2112 Robotics Engg. (EE's use ECE Waitlist)
| EE 3280 | Robot Operating Systems | EE2180 and SAT2711
| EE 4221 | Power System Analysis I | EE3120 and EE2112
| EE 4227 | Power Electonics | EE3120 and EE3131
| EE 4228 | Power Electonics Lab | (C)EE4227
| EE 4231 | Physical Electronics | EE3131 Fall
| EE 4235 | Sensing/Processing in Robotics | ENG1101 and EE2180
| EE 4240 | Intro to MEMS (alternating falls-odd) | Not FR, SO, JR
| EE 4252 | Digital Signal Processing & It's Applications | EE3160
| EE 4271 | VLSI Design | EE3131 and EE2174
| EE 4272 / CS 4+ Computer Networks | | CS3411
| EE 4295 | Intro to Propulsion Syst. for Hybrid Elec Vehicles | MEEM2200 or ENG3200
| EE 4296 | Intro Propulsion Sys. for Hybrid Elec veh Lab | Not FR, SO, JR
| EE 4411 | Engineering Electromagnetics | EE3140 On Dmd
| EE 4490 | Laser Systems & Applications | EE3140
| EE 4370 | IoT Applications and Design | see instructor or EE4272

### Spring

| EE 2180 | Introduction to Robotics | (EE3010(C) or EE2111(C)) and (MA2321(C) or MA2320(C))
| EE 2190 | Introduction to Photonics (begins Spring 2019) | PH2200(C), MA3520/21
| EE 3290 | Photonic Materials , Devices & Applications | EE3140 or PH2400 or EE2190
| EE 4219 | Intro to Electric Machinery and Drives | EE3120 and (EE3010 or EE2112)
| EE 4220 | Intro to Electric Machinery and Drives Lab | EE4219(C) co-req
| EE 4222 | Power Systems Analysis 2 | EE4221
| EE 4226 | Power Engineering Lab (Also offered 1st week May) | F1EE4222 EE4222(Co-req)
| EE 4232 | Electronic Applications | EE3131
| EE 4262 | Digital & Non-linear Control | EE3261
| EE 4272 / CS44 Computer Networks | | CS3411
| EET 4373 | Advanced Programmable Contollers | EE3373 or EET3373
| EE 4375 | Autonomous Vehicle Design | (EE3261 or MEEM3750) and EE3280 expect Spg 2023
| EE 4723 | Network Security | EE4272 or CS4461 or SAT4812
| EE 4737 | Embedded Syst. Interfacing (Not Spg 2021) | (CS1142 or CS1111) and (EE3173 or EE3171)
| EE tba | Digital Signal Processing for Smart Grids | tba

### Alternating

| EE 5223 | Power System Protection | EE4221 EE4222(Co-req) Odd Springs
| EE 5224 | Power System Protection Lab | EE5223(Co-req) Odd Springs
| EE 5250 | Distribution Engineering | EE4221 Obtain level-restriction waiver Even Springs
| EE 5370 | Internet of Things Applications and Design | EE4272 Even Springs
| EE 5435 | High-Speed Circuit Design | Level waiver Odd Springs
| EE 5471 | Microfabrication Lab | Seniors Level waiver On Dmd

### Varies

| EE 4800 | Special Topics *(check schedule of classes)* | Instr. Permission

### GRAD level

*Seek level restriction waiver - instructor permission required.*