**Department of Electrical Engineering and Computer Science**  
**Electrical- Power & Energy Systems Concentration Catalog 2019**

### Fall
- **Math 141 or 147 (4)**  
  Prereq: Math 130 or Math 28 ACT or Math 630 SAT  
- **EF 151 or 157 (4)**  
  Prereq: EF 151 or 157
- **CS 102 (4)**  
  Prereq: CS 102 (formerly CS 160)
- **English 101/118 or 198 or 131 (3)**
  - Regular
  - Honors
  - Chancellor Honors Only
- **15 hours**  
  **Prereq-** Math 130 or Math 28 ACT  
  **Coreq-** Math 141 or 147

### Spring
- **Math 142 or 148 (4)**  
  Prereq: Math 141 or 147
- **EF 152 or 158 (4)**  
  Prereq: EF 151 or 157
- **CS 130 (4)**  
  Prereq: CS 102
- **English 102 or 290 or 298 or 132 (3)**  
  - Prereq 101 or 118
  - AP 101 credit
  - Formerly CS 160
  - ESL
- **15 hours**  
  **Prereq-** Math 141 or 147  
  **Prereq-** EF 151 or 157  
  **Prereq-** CS 102
  **Coreq-** Math 141 or 147

### Fall
- **Math 231 or 237 (3)**  
  Prereq: Math 130 or Math 28 ACT or Math 630 SAT  
- **ECE 255 (3)**  
  Prereq: ECE 142 or 148  
- **Physics 231 (3)**  
  Prereq: Math 142 or 148
- **Chem 120 or 128 (4)**  
  Prereq: Math 119recommended background Math 130
- **ECE 201 (3)**  
  Prereq: EF 152/158 and Math 142/148 with C or better
  **Coreq-** Math 231/237
- **16 hours**  
  **Prereq-** Math 142 or 148  
  **Prereq-** CS 130  
  **Coreq-** Math 142 or 148

### Spring
- **Math 241 or 247 (4)**  
  Prereq: Math 142 or 148
- **ECE 253 (4)**  
  Prereq: ECE 241 or 247
- **Physics 232 (4)**  
  Prereq: Physics 231
- **ECE 313 or 317 (3)**  
  Prereq: ECE 142 or 148
- **ECE 202 (3)**  
  Prereq: ECE 201

### Fall
- **ECE 315 (3)**  
  Prereq: ECE 202
- **ECE 325 (3)**  
  Prereq: ECE 202
- **ECE 335 (3)**  
  Prereq: ECE 202
- **ECE 341 or 347 (3)**  
  Prereq: ECE 202, Math 241 or 247 and Physics 232
- **ECE 395 (1)**  
  Prereq: ECE 202
  **Gen. Ed. (3)**  
  **Social Science**

### Spring
- **ECE 316 (3)**  
  Prereq: ECE 315
- **ECE 336 (3)**  
  Prereq: ECE 335
- **ECE 342 (3)**  
  Prereq: ECE 313, 315
- **Gen. Ed. (3)**  
  **Social Science**
  **Social Sciences**
  **Arts & Humanities**

### Fall
- **ECE Sr. Elective (3)**  
  **Senior Elective**
- **ECE Sr. Elective (3)**  
  **Senior Elective**
- **Power Elective(3)**  
  **Senior Elective**
- **ECE 401 (2)**  
  **Gen. Ed. (3)**  
  **Arts and Humanities**
  **Cultures and Civilizations**
- **ECE 496 (1)**  
  **ECE 401, ENGL 102, 290 or 298**

### Spring
- **Economic, Entrepreneurship and Innovation Elective (3)**  
  **ECE Sr. Elective (3)**  
  **Tech. Elective(3)**  
  **Power Elective(3)**
- **ECE 402 (OC and WC) (3)**
  **ECE 401 SP**
  **ECE 496 (1)**

### Senior ECE electives: Choose 6 credit hours of ECE senior elective with Advisor’s consent. Up to 2 COSC 5XX or ECE 5XX courses may count as upper division electives. Acceptable senior electives are ECE 400X courses that are not otherwise required for the degree.

### Power & Energy System Electives: ECE 415, ECE 421, ECE 422, ECE 481, ECE 482, ECE 521, ECE 522, ECE 523, ECE 525.

### Technical Electives: COSC 140, COSC 311 or MATH 300, COSC 370, CHEM 130/138, IE 406, MSE 201/207, MSE 410, ME 231, ME 321, ME 331, NE 342 or NE 347.

### Economic, Entrepreneurship, and Innovation Elective: Choose from IE 405, IE 457 (or ME 457), IE 518, IE 557 (or ME 519) MGT 552, or MGT 560.

### Progression
- The department requires at least a C in every computer engineering, computer science, electrical engineering, and mathematics course used for the undergraduate degrees. ECE 201 requires a C or better in EF 152/158 and Math 142/148.
- Progression of departmental undergraduate students to the upper-division programs of the department is competitive and is based on the space available in the department. Factors considered in the decision include overall grade point average, grades earned in courses required in the lower division curricula of the department and College of Engineering, and seriousness of purpose and interest in departmental programs as exemplified by regular and orderly progress through the prescribed curriculum without abuse of withdrawal and course repeat privileges.
- Students who take ECE 300 (now ECE 201-202) will be evaluated during the semester they are registered for it. Transfer students for whom ECE 300 (now ECE 201-202) transfer credit is given may take 9 semester hours in departmental courses before progression evaluation. All students, whether or not they transfer in, who are not accepted into the upper-division program of the department will be put in either a temporary probationary status or a non-progressed status and will not be permitted to register for any upper division courses within the department.

- Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements.