

## Department of Electrical Engineering and Computer Science Electrical- Power & Energy Systems Concentration Catalog 2017

Fall 15 hours	Math 141 or 147 (4) FA, SP, SU Prereq- Math 130 or Math 28 ACT or Math 630 SAT	EF 151 or 157 (4) FA, SP Coreq- Math 141 or 147 and EF 105 or CS 102	CS 102 (4) FA, SP Coreq- Math 141 or 147	English 101 or 118 (3) FA, SP, SU
Spring 15 hours	Math 142 or 148 (4) FA, SP, SU Prereq- Math 141 or 147	EF 152 or 158 (4) FA, SP Prereq- EF 151 or 157	CS 130 (4) FA, SP Prereq- CS 102 (CS 130 formerly CS 160)	English 102 (3) FA, SP, SU Prereq- English 101 or 118

Fall 16 hours	Math 231 or 237 (3) FA, SP, SU Prereq- Math 142 or 148	ECE 255 (3) FA, SP, SU Prereq- CS 130	Physics 231 (3) FA, SP, SU Coreq- Math 142 or 148	Chem 120 or 128 (4) FA, SP, SU Math 130	ECE 201 (3) FA, SP, SU Prereq- EF 152/158 and Math 142/148 Coreq- Math 231, access FORM
Spring 17 hours	Math 241 or 247 (4) FA, SP, SU Prereq- Math 142 or 148	Math 251 or 257 (3) FA, SP, SU Prereq- Math 142 or 148	Physics 232 (4) FA, SP, SU Prereq- Physics 231 Coreq- Math 241 or 247	ECE 313 or 317 (3) FA, SP Prereq- Math 142 or 148	ECE 202 (3) FA, SP, SU Prereq- 201

Fall 16 hours	ECE 315 (3) FA, SU Prereq- ECE 202	ECE 325 (3) FA, SP Prereq- ECE 202	ECE 335 (3) FA, SP Prereq- ECE 202	ECE 341 or 347 (3) FA, SP Prereq- ECE 202, Math 241 or 247 and Physics 232	ECE 395 (1) FA, SP Prereq- ECE 202	Gen. Ed. (3) FA, SP, SU Social Science
Spring 15 hours	ECE 316 (3) SP, SU Prereq- ECE 315	ECE 336 (3) FA, SP Prereq- ECE 335 Coreq- ECE 315	ECE 342 (3) FA, SP Prereq- ECE 313, 315	Gen. Ed. (3) FA, SP, SU Social Science	Gen. Ed. (3) FA, SP, SU Arts & Humanities	

Fall 17 hours	ECE Sr. Elective (3) FA, SP Senior Elective	ECE Sr. Elective (3) FA, SP Senior Elective	Power Elective(3) FA, SP	ECE 401 (2) FA Prereq- ECE 315 or 351	Gen. Ed. (3) FA, SP, SU Arts and Humanities	Gen. Ed. (3) FA, SP, SU Cultures and Civilizations
Spring 16 hours	Economic, Entrepreneurship Innovation Elective (3) FA, SP	Tech. Elective(3) FA, SP	Power Elective(3) FA, SP	ECE 402 (OC&WC) (3) SP Prereq- ECE 401	Gen. Ed. (3) FA, SP, SU Cultures and Civilizations	ECE 496 (1) SP Prereq- ECE 325

**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 4XX 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 405; MSE 201/207, MSE 410; ME 231, ME 321, ME 331, ME 344; 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.

### UTRACK Milestones:

<b>Term 1</b> Math 130 or higher or one SS or one AH or one CC	<b>Term 2</b> Math 130 or higher	<b>Term 3</b> EF 151/157 or Physics 135/137	<b>Term 4</b> EF 152/158 or Physics 136/138	<b>Term 5</b> ME 202 or CS 102 or MSE 201 or CBE 201	<b>Term 6 through 8</b> No Milestones
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