

Electrical Engineering Concentration Outline

()=Pre-requisites, Co=Co-requisites

Fall Semester

Freshman

| | | |
|---------|--|----|
| ENGR120 | Intro to Engineering & Design | 2 |
| ENGR125 | Engineering Graphics | 3 |
| MATH191 | Calculus I (P5, or MATH167, or MATH168) | 4 |
| HLED135 | Wellness | 3 |
| ENGL115 | College Writing I | 3 |
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Spring Semester

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|---------|-------------------------------------|----|
| ENGR180 | Material Science (CHEM131) | 3 |
| MATH192 | Calculus II (MATH191 or MATH195) | 4 |
| ENGR185 | Engineering Statics (MATH191) | 3 |
| RELT100 | God & Human Life | 3 |
| COMM104 | Communication Skills | 3 |
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Sophomore

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|---------|--|----|
| ENGR225 | Circuit Analysis (MATH191) | 3 |
| PHYS241 | Physics for Scientists I (MATH192; Co: PHYS271) | 5 |
| MATH240 | Calculus III (MATH192) | 4 |
| CPTR151 | Computer Science I | 3 |
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|-------------|---|----|
| ENGR285 | Engineering Dynamics (ENGR185, PHYS241, and MATH192; Co: MATH286) | 3 |
| MATH286 | Differential Equations (MATH192) | 3 |
| CPTR152 | Computer Science II (CPTR151) | 3 |
| PHYS242/272 | Physics for Scientists II (MATH192 and PHYS241; Co: PHYS 272) | 5 |
| ENGR275 | Electronics I (ENGR225) | 3 |
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Junior

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|---------|--|----|
| MATH215 | Linear Algebra (MATH182, MATH191, or MATH195) | 3 |
| ENGL215 | College Writing II (ENGL115 or ENGL117) | 3 |
| ENGR435 | Electromagnetic Fields (MATH240, MATH286, PHYS 242) | 4 |
| ENGR325 | Electronics II (ENGR275) | 4 |
| REL | Religion (RELB, RELG, RELT) | 3 |
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|---------|---|----|
| ENGR310 | Linear Systems Analysis (MATH215, MATH286, CPTR151) | 3 |
| STAT340 | Probability and Statistics (MATH191 or MATH195) | 3 |
| ENGR315 | Critical Thinking (PHYS242) | 3 |
| ENGR385 | Microprocessor Systems (ENGR335 or CPTR276) | 4 |
| ENGR390 | ENGR Measurements Lab (ENGR330, ENGR340) | 4 |
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Senior

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|---------|---|---|
| ENGR491 | Review of Engineering Design | 1 |
| ENGR450 | Engineering Economy (MATH145 or MATH191) | 2 |
| REL | Religion (RELB, RELG, RELT) | 3 |

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| ENGR492 | Senior Design Project (ENGR385 or ENGR390) | 3 |
| ENGR455 | Communications Systems (EL) | 4 |
| REL | Religion (RELG, RELB, RELT) | 3 |

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|---------|---|-------|---------|-----------------------------|-------|
| GEN ED | Social Sciences | 3 | GEN ED | Arts/Humanities | 3 |
| ENGR410 | Feedback Control (ENGR275, ENGR285, ENGR310) | 4 | HIST110 | Worldviews, Cultures, and G | 3 |
| GEN ED | Art/Humanity | 3 | | | |
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Offered every other year*

Suggested 4-year course outline per Bulletin 2021-2022 **Total Credits for Graduation** **129**