

Electrical Engineering – Computer Track

| | UI Course # | University of Iowa Course Title | SH | | EICC Course # | Eastern Iowa CC District Course Title | SH | |
|-------------------|--------------------------------------|---|-----------|------------------------------|------------------------------|---------------------------------------|----------------------------------|---|
| Semester 1 | | | | | | | | |
| Fall | MATH:1550 | Engineering Math I – Single Variable Calculus | 4 | BOTH | MAT 210 | Calculus I | 4 | |
| | | | | | MAT 216 | Calculus II | 4 | |
| | ENGR:1100 | Introduction to Engineering Problem Solving | 3 | | EGR 160 | Engineering I | 3 | |
| | CHEM:1110 | Principles of Chemistry I & Lab | 4 | CHOOSE 1 | CHM 165 | General Chemistry I | 4 | |
| | | | | | CHM 166 | General Chemistry I | 5 | |
| | RHET:1030 | Rhetoric (Writing Component 1, Writing Component 2, and a single Speech Component all required) | 4 | CHOOSE 1 | ENG 105 | Composition I | 3 | |
| | | | | | ENG 107 | Composition I:Technical Writing | 3 | |
| | | | | | CHOOSE 1 | ENG 106 | Composition II | 3 |
| | | | | | | ENG 108 | Composition II:Technical Writing | 3 |
| | | | | | SPC 112 | Public Speaking | 3 | |
| ENGR:1000 | Engr Success for First-Year Students | 1* | | No equivalent course offered | | | | |
| | Total | | 16 | | | | | |
| Semester 2 | | | | | | | | |
| Spring | MATH:1560 | Engineering Math II: Multi-Variable Calculus | 4 | | MAT 219** | Calculus III | 4 | |
| | MATH:2550 | Engineering Math III: Matrix Algebra | 2 | | No equivalent course offered | | | |
| | ENGR:1300 | Introduction to Engineering Computing | 3 | CHOOSE 1 | CIS 171 | Java | 3 | |
| | | | | | CIS 172 | Java | 4 | |
| | | | | | CIS 161 | C++ | 3 | |
| | PHYS:1611 | Introductory Physics I | 4 | | PHY 212 | Classical Physics I | 5 | |
| | | General Education Component #1 | 3 | | | | | |
| | Total | | 16 | | | | | |
| Semester 3 | | | | | | | | |
| Fall | MATH:2560 | Engineering Math IV: Differential Equations | 3 | | MAT 227 | Differential Equations with Laplace | 4 | |
| | PHYS:1612 | Introductory Physics II | 4 | | PHY 222 | Classical Physics II | 5 | |
| | ENGR:2110 | Engineering Fundamentals I:Statics | 2 | | EGR 180 | Statics | 3 | |
| | ENGR:2120 | Engineering Fundamentals II: Electrical Circuits | 3 | | EGR 285 | Introduction to Electrical Science | 3 | |
| | ENGR:2130 | Engineering Fundamentals III: Thermodynamics | 3 | | EGR 290 | Thermodynamics | 3 | |
| | | Total | | 15 | | | | |
| Semester 4 | | | | | | | | |
| Spring | MATH:3550 | Engineering Math V: Vector Calculus | 3 | | No equivalent course offered | | | |
| | ECE:2400 | Linear Systems I | 3 | | No equivalent course offered | | | |
| | ECE:2410 | Principles of Electronic Instrumentation | 4 | | No equivalent course offered | | | |
| | ENGR:2730 | Computers in Engineering | 3 | | No equivalent course offered | | | |
| | | General Education Component #2 | 3 | | | | | |
| | | Total | | 16 | | | | |

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| Semester 5 | | | | | | | |
| Fall | STAT:2020 | Probability and Stat for Engineering & Phys Sci | 3 | | | No equivalent course offered | |
| | ECE:3320 | Intro to Digital Design | 3 | | | No equivalent course offered | |
| | CS:2210 | Discrete Structures | 3 | | | No equivalent course offered | |
| | ECE:3330 | Introduction to Software Design | 3 | | | No equivalent course offered | |
| | ECE:3700 | Electromagnetic Theory | 3 | | | No equivalent course offered | |
| | ECE:3000 | Professional Seminar: Electrical Engineering | 1 | | | No equivalent course offered | |
| | | Total | | 16 | | | |
| Semester 6 | | | | | | | |
| Spring | CS:2230 | Computer Science II (EFA #1) | 3 | | | No equivalent course offered | |
| | ECE:3350 | Computer Architecture and Organization | 3 | | | No equivalent course offered | |
| | ECE:3360 | Embedded Systems and System Software | 3 | | | No equivalent course offered | |
| | | Elective Focus Area #2 | 3 | | | | |
| | | Elective Focus Area #3 | 3 | | | | |
| | | General Education Component #3 | 3 | | | | |
| | | Total | | 18 | | | |
| Semester 7 | | | | | | | |
| Fall | ECE:4880 | Principles of Electrical Engineering Design | 3 | | | No equivalent course offered | |
| | CS:3330 | Algorithms | 3 | | | No equivalent course offered | |
| | | Elective Focus Area #4 | 3 | | | | |
| | | Elective Focus Area #5 | 3 | | | | |
| | | Track Breadth Elective | 3 | | | No equivalent course offered | |
| | | General Education Component #4 | 3 | | | | |
| | | Total | | 18 | | | |
| Semester 8 | | | | | | | |
| Spring | ECE:4890 | Senior Electrical Engineering Design | 3 | | | No equivalent course offered | |
| | | Track Depth Elective | 3 | | | No equivalent course offered | |
| | | Elective Focus Area #6 | 3 | | | | |
| | | Elective Focus Area #7 | 3 | | | | |
| | | General Education Component #5 | 3 | | | | |
| | | Total | | 15 | | | |

2017-18 Curriculum

updated June 2018

* 1sh; does not count toward 128 sh total required for graduation

**Students must have completed Calculus I, II, and III to receive credit for Engineering Math II