

**ELECTRICAL ENGINEERING PROGRAM (2019 - 2020)**

|   |   |   |   |  |   |
|---|---|---|---|--|---|
| <b>Fall of First Year (16 credits)</b>  |   |   | <b>Spring of First Year (16 credits)</b>  |  |   |
| MATH 1210                               | Calculus I (May require pre-requisite)                | 5 | MATH 1220                                 | Calculus II                                    | 5 |
| CHEM 1210                               | Principles of Chemistry                               | 4 | PHYS 2210                                 | Physics for Scientists and Engineers I         | 4 |
| CHEM 1215                               | Principles of Chemistry Lab                           | 1 | PHYS 2215                                 | Physics for Scientists and Engineers I Lab     | 1 |
| ENGL 1010                               | Introduction to Writing                               | 3 | ENGL 2010                                 | Intermediate Writing                           | 3 |
| ENGR 1000                               | Introduction to Engineering                           | 3 | CS 1400                                   | Fundamentals of Programming                    | 3 |
| <b>Fall of Second Year (17 credits)</b> |   |   | <b>Spring of Second Year (16 credits)</b> |  |   |
| CS 2810                                 | Computer Organization and Architecture                | 3 | MATH 2210                                 | Calculus III                                   | 3 |
| PHYS 2220                               | Physics for Scientists and Engineers II               | 4 | ECE 3750                                  | Engineering Analysis                           | 3 |
| PHYS 2225                               | Physics for Scientists and Engineers II Lab           | 1 | ECE 2760                                  | Intro. to Semiconductor Theory and Nanotech.   | 3 |
| ECE 2700                                | Digital Design I                                      | 3 | ECE 2250                                  | Circuit Theory                                 | 3 |
| ECE 2705                                | Digital Design I Lab                                  | 1 | ECE 2255                                  | Circuit Theory Lab                             | 1 |
| Biology                                 | Choose from the GE approved Biology List              | 3 | ECE 3710                                  | Applied Probability & Statistics for Engineers | 3 |
| Health                                  | HLTH 1100 or PES 1097                                 | 2 |   |  |   |
| <b>Fall of Third Year (16 credits)</b>  |   |   | <b>Spring of Third Year (15 credits)</b>  |  |   |
| ECE 3770                                | Signals and Systems                                   | 3 | ECE 3250                                  | Energy Conversion                              | 3 |
| ECE 3740                                | Digital Design II                                     | 3 | ECE 3350                                  | Control Systems                                | 3 |
| ECE 3760                                | Electronic Systems                                    | 3 | ECE 3780                                  | Communication Systems and Circuits             | 3 |
| ECE 3765                                | Electronic Systems Lab                                | 1 | ECE 4730                                  | Embedded Systems II                            | 3 |
| ECE 3730                                | Embedded Systems I                                    | 3 | COMM 1020                                 | Public Speaking                                | 3 |
| Fine Arts                               | Choose from the GE approved Fine Arts list            | 3 |   |  |   |
| <b>Fall of Fourth Year (15 credits)</b> |   |   | <b>Spring of Fourth Year (15 credits)</b> |  |   |
| ECE 4900                                | Electrical Engineering Capstone I                     | 3 | ECE 4950                                  | Electrical Engineering Capstone II             | 3 |
| ECE 4760                                | VLSI Design   | 3 | ECE 3450                                  | Electromagnetics & Transmission Lines          | 3 |
| EE Elective                             | Choose from the EE approved Electives                 | 3 | EE Elective                               | Choose from the EE approved Electives          | 3 |
| Am.Inst.                                | Choose from the GE approved American Institution list | 3 | ECE 4750                                  | Digital Signal Processing                      | 3 |
| COMM 2110                               | Interpersonal Communications                          | 3 | PHIL 2050                                 | Ethics and Values                              | 3 |