

# **Electrical Engineering Course Plan**

**Catalog Year 2022-2023**

## Second Year

### Fall Semester

|   |                   |
|---|-------------------|
| Digital Logic Design (ENGE 220) *                     | 4 credits         |
| Math/Science Elective (see catalog) †                 | 3 credits         |
| General Physics with Calculus (PHYS 212) *            | 4 credits         |
| Differential Equations w/ Linear Algebra (MATH 311) * | 4 credits         |
| Personhood (PSYC 100) ‡                               | 3 credits         |
| <b>Semester Total</b>                                 | <b>18 credits</b> |
| <b>Cumulative Total</b>                               | <b>52 credits</b> |

### Spring Semester

|  |                   |
|--|-------------------|
| Electrical Circuit Analysis (ENGE 250) *         | 4 credits         |
| Electrical Power Systems (ENGE 270) *            | 3 credits         |
| Introduction to Computer Science II (CSIS 202) * | 3 credits         |
| Calculus III (MATH 301) *                        | 3 credits         |
| Principles of Economics (ECON 200) *             | 3 credits         |
| <b>Semester Total</b>                            | <b>16 credits</b> |
| <b>Cumulative Total</b>                          | <b>68 credits</b> |

## Third Year

### Fall Semester

|  |                   |
|--|-------------------|
| Servant Engineering I (ENGR 381) *         | 2 credits         |
| Electronic Devices & Circuits (ENGE 311) * | 4 credits         |
| Microprocessor Architecture (ENGE 320) *   | 4 credits         |
| Electrical Signals & Networks (ENGE 330) * | 3 credits         |
| Math Elective (see catalog) †              | 3 credits         |
| <b>Semester Total</b>                      | <b>16 credits</b> |
| <b>Cumulative Total</b>                    | <b>84 credits</b> |

### Spring Semester

|   |                   |
|---|-------------------|
| Servant Engineering II (ENGR 382) *             | 2 credits         |
| Applications of Electronic Devices (ENGE 312) * | 4 credits         |
| Electromagnetic Fields & Waves (ENGE 360) *     | 3 credits         |
| Embedded Systems Design (ENGE 420) *            | 3 credits         |
| Justice (SSCI 100) ‡                            | 3 credits         |
| <b>Semester Total</b>                           | <b>15 credits</b> |
| <b>Cumulative Total</b>                         | <b>99 credits</b> |

## Fourth Year

### Fall Semester

|   |                    |
|---|--------------------|
| Senior Design I (ENGR 481) *                      | 1 credits          |
| Engineering Senior Seminar (ENGR 490) *           | 1 credits          |
| Communication Systems (ENGE 430) *                | 3 credits          |
| Power Electronics & Renewable Energy (ENGE 470) * | 3 credits          |
| Ethics (THEO 380) ‡                               | 3 credits          |
| Faith and Story (LITR 111) ‡                      | 3 credits          |
| <b>Semester Total</b>                             | <b>14 credits</b>  |
| <b>Cumulative Total</b>                           | <b>113 credits</b> |

### Spring Semester

|   |                    |
|---|--------------------|
| Senior Design II (ENGR 482) *                     | 3 credits          |
| Microwave Engineering & Applications (ENGE 460) * | 3 credits          |
| Digital Signal Processing (ENGE 480) *            | 3 credits          |
| The Modern and Postmodern World (HIST 111) ‡      | 3 credits          |
| Art and Global Culture (ARTP/V 120) ‡             | 3 credits          |
| <b>Semester Total</b>                             | <b>15 credits</b>  |
| <b>Cumulative Total</b>                           | <b>128 credits</b> |

## Notes