# Bachelor of Science – Engineering Leadership

## Degree Plan - General Engr with Computer Science Sequence (checklist)

**NOTE: Overall GPA ≥ 2.0 AND In-Major GPA ≥ 2.0 REQUIRED for graduation**

### A. Core Curriculum (45 SCH)

- Communication (6 credit hours required)
  - RWS 1301*: Rhetoric and Composition I
  - RWS 1302*: Rhetoric and Composition II

- Mathematics (4)
  - MATH 1411*: Calculus I

- Life and Physical Sciences (8)
  - PHYS 2420*: Introductory Mechanics
  - PHYS 2421*: Introductory Electromagnetism

- Language, Philosophy, and Culture (3)
  - PHIL 2306*: Ethics

- Creative Arts (3)
  - ART 1300*, ARTH 1305*, 1306*, DANC 1304*, FILM 1390*, MUSL 1321*, 1324*, 1327*, THEA 1313*

### B. Foundational Math & Science (12 SCH)

- Calculus II
  - MATH 1312*

- Discrete Mathematics
  - MATH 2300

- Differential Equations
  - MATH 2326*

- General Chemistry
  - CHEM 1305*

### C. Engineering Leadership Coursework (28 SCH)

- Fundamentals of Eng. Leadership and Graphics
  - EL 1405*

- Intro to Eng. Design & Leadership
  - EL 1302*

- Professional Practice I
  - EL 3003

- Professional Practice II
  - EL 3005

- Modeling and Simulation
  - EL 2301*

- Engineering Measurements
  - EL 3302*

- Engineering Design: Products to People
  - EL 3304*

- Engineering Design: People to Products
  - EL 3331*

- Engineering Probability & Stat. Models
  - EL 3373*

- Capstone Design I: Definition & Exploration
  - EL 4395*

- Capstone Design II: Development & Evaluation
  - EL 4396*

### D. General Engr w/CS Sequence Required Courses (18 SCH)

- Intro to Materials Sci & Engr
  - MME 2303

- Mechanics of Materials
  - MME 2434

- Electro Mechanic Systems
  - MECH 2311

### E. Major: Concentration Courses (12 SCH)

- Econ. For Engrs & Scientists
  - CE 2326*

- Foundations of Engineering
  - UNIV 1301*

- Business/Profession Comm
  - COMM 1302*

### F. Upper Division Engineering Technical Elective (9 SCH)

- Intro to Computer Science
  - CS 1301

- Intro to Computer Science Lab
  - CS 1101

- Data Structures
  - CS 2302

- Elem. Data Struct./Algorithms
  - CS 2401

- Undegraduate Seminar
  - CS 4181

### H. Upper Division Math/Science Elective (3 SCH)

- Matrix Algebra (Required)
  - MATH 3323

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**NOTES:**

- * -- C or better required
- ** -- requires submission of official substitution form.
- a – CE 1205 may be substituted upon pre-approval.
- b – IE 3373 may be substituted.

**APPROVALS:**

- ADVISOR
- DATE

- CHAIR
- DATE

Total Hours: 125