

Bachelor of Science in Industrial Engineering

2025-2026 Catalog

Total Credits Required =123

1. Communications (9 cr.)

- _____ SPCM 2120 Fundamentals of Public Speaking (3)
- _____ ENGL 3140 Technical Communication (3)
- _____ ENGL 2500 Written, Oral, Visual, & Electronic Composition (3)

2. Social Science & Humanities (12 cr.)*

- _____ U.S. Cultures & Community (3)
- _____ International Perspectives (3)
- _____ (3)
- _____ (3)

Note: Students must choose SSH courses from at least 2 different programs.

**See the list of courses approved by the IMSE Department.*

3. Basic Program (24 cr.)

- _____ CHEM 1670 General Chemistry for Engineering Students (4)
or CHEM 1770 General Chemistry (4)
- _____ ENGL 1500 Critical Thinking and Communication (3)
- _____ ENGR 1010 Engineering Orientation (R)
- _____ IE 1600 Information Engineering (3)
- _____ LIB 1600 Introduction to College Level Research (1)
- _____ MATH 1650 Calculus I (4)
- _____ MATH 1660 Calculus II (4)
- _____ PHYS 2310 and 2310L Introduction to Classical Physics I (5)

4. Math and Physical Science (17 cr.)

- _____ MATH 2650 Calculus III (4)
- _____ MATH 2670 Elementary Differential Equations & Laplace Transforms (4)
- _____ PHYS 2320 and 2320L Introduction to Classical Physics II (5)
- _____ STAT 2310 Probability & Statistical Inference for Engr (4)

5. Industrial Engineering Core (37 cr.)

- _____ IE 2220 Design & Analysis Methods for System Improvements (3)
- _____ IE 2480 Engineering System Design, Manufacturing Processes & Specifications (3)
- _____ IE 2710 Applied Ergonomics & Work Design (3)
- _____ IE 3050 Engineering Economic Analysis (3)
- _____ IE 3120 Optimization (3)
- _____ IE 3410 Production Systems (3)
- _____ IE 3480 Solidification Processes (3)
- _____ IE 3610 Statistical Quality Assurance (3)
- _____ IE 4130 Stochastic Modeling, Analysis & Simulation (4)
- _____ IE 4320 Industrial Automation (3)
- _____ IE 4410 Industrial Engineering Design (3)
- _____ IE 4480 Manufacturing Systems Engineering (3)

6. IE Program Electives (15cr.)

- _____ AM, HFE, OR&A Program Elective (6)
- _____ I SE & EM E Program Elective (3)
- _____ Non-IMSE STEM IE Program Elective (3)
- _____ Any IE Program Elective (3)

7. Other Remaining Courses (9 cr.)

- _____ MATE 2730 Principles of Materials Sci & Engineering (3)
- _____ CE 2740 Engineering Statics (3)
- _____ ME 2310 Engineering Thermodynamics (3)

8. Required Seminar

- _____ IE 1020 Industrial Engineering Profession (R)