

Bachelor of Science in Industrial Engineering

2023-2024 Catalog

Total Credits Required =122 or 124

1. Communications (9 cr.)

- _____ SP CM 212 Fundamentals of Public Speaking (3)
- _____ ENGL 314 Technical Communication (3)
- _____ ENGL 250 Written, Oral, Visual, & Electronic Composition (3)

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

- _____ U.S. Diversity (3)
- _____ International Perspectives (3)
- _____ (3)
- _____ (3)

Note: Six credits in the SSH area must be 200-level or above, and six credits must form a sequence of prerequisite or related courses.

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

3. Basic Program (24-25 cr.)

- _____ CHEM 167 General Chemistry for Engineering Students (4)
or CHEM 177 General Chemistry and Chemistry Lab (5)
- _____ ENGL 150 Critical Thinking and Communication (3)
- _____ ENGR 101 Engineering Orientation (R)
- _____ I E 148 Information Engineering (3)
- _____ LIB 160 Information Literacy (1)
- _____ MATH 165 Calculus I (4)
- _____ MATH 166 Calculus II (4)
- _____ PHYS 231 and 231L Introduction to Classical Physics I (5)

4. Math and Physical Science (17 cr.)

- _____ MATH 265 Calculus III (4)
- _____ MATH 267 Elementary Differential Equations & Laplace Transforms (4)
- _____ PHYS 232 and 232L Introduction to Classical Physics II (5)
- _____ STAT 231 Probability & Statistical Inference for Engr (4)

5. Industrial Engineering Core (34 cr.)

- _____ I E 222 Design & Analysis Methods for System Improvements (3)
- _____ I E 248 Engineering System Design, Manufacturing Processes & Specifications (3)
- _____ I E 271 Applied Ergonomics & Work Design (3)
- _____ I E 305 Engineering Economic Analysis (3)
- _____ I E 312 Optimization (3)
- _____ I E 341 Production Systems (3)
- _____ I E 348 Solidification Processes (3)
- _____ I E 361 Statistical Quality Assurance (3)
- _____ I E 413 Stochastic Modeling, Analysis & Simulation (4)
- _____ I E 441 Industrial Engineering Design (3)
- _____ I E 448 Manufacturing Systems Engineering (3)

6. Other Remaining Courses (26 or 27 cr.)

- _____ MAT E 273 Principles of Materials Sci & Engineering (3)
- _____ C E 274 Engineering Statics (3)
- _____ IE 432 Industrial Automation (3) OR: E E 442 Introduction to Circuits and Instruments (2)
- _____ M E 231 Engineering Thermodynamics (3)
- _____ Focus Electives (6)
- _____ Management Elective (3)
- _____ Engineering Topic Electives (6)

7. Required Seminar

- _____ I E 101 Industrial Engineering Profession (R)