Sample Plan of Study

Sample plans represent one way to complete a program of study. Actual course selection and sequence will vary and should be discussed with an academic advisor. For additional sample plans, see MyUI.

Industrial Engineering, B.S.E.

Course | Title | Hours
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**First Year**
Fall | RHET:1030 | Rhetoric | 4
 | MATH:1550 | Engineering Mathematics I: Single Variable Calculus | 4
 | CHEM:1110 | Principles of Chemistry | 4
 | ENGR:1100 | Introduction to Engineering Problem Solving | 3
 | ENGR:1000 | Engineering Success for First-Year Students | 1
 | CSI:1600 | Success at Iowa | 0
**Hours** | 16

Spring
GE: Engineering Be Creative | 3
 | MATH:1560 | Engineering Mathematics II: Multivariable Calculus | 4
 | MATH:2550 | Engineering Mathematics III: Matrix Algebra | 2
 | PHYS:1611 | Introductory Physics I | 4
 | ENGR:1300 | Introduction to Engineering Computing | 3
**Hours** | 16

Second Year
Any Semester
Students must choose a focus area. More information can be found on the industrial and systems engineering website.

**Total Hours** | 129-130

Third Year
Fall
GE: Diversity and Inclusion | 3
 | ISE:2360 | Design for Manufacturing | 3
 | ISE:3400 | Human Factors | 3
 | ISE:3610 | Stochastic Modeling | 3
 | ISE:3700 | Operations Research | 3
**Hours** | 15

Spring
GE: Approved Course Subjects | 3
 | ISE:3300 | Manufacturing Systems | 3
 | ISE:3450 | Ergonomics | 3
 | ISE:3660 | Data Analytics with R | 3
 | ISE:3750 | Digital Systems Simulation | 3
 | Required or elective: focus area course | 3
 | Required or elective: focus area course | 3
**Hours** | 18

Fourth Year
Fall
GE: Approved Course Subjects | 3
 | ISE:3350 | Process Engineering | 3
 | ISE:3600 | Quality Control | 3
 | Required or elective: focus area course | 3
 | Required or elective: focus area course | 3
**Hours** | 15

Spring
ISE:4600 | Industrial Engineering Design Project | 4
 | Elective: focus area systems course | 3
 | Required or elective: focus area math/science course | 3
 | Required or elective: focus area course | 3
 | Elective: focus area course | 3
 | ISE:3000 | Professional Seminar: Industrial Engineering | 0
**Hours** | 18

Degree Application: apply on MyUI before deadline (typically in February for spring, September for fall)

**Total Hours** | 129-130

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a. Typically this course is offered in fall, spring, and summer sessions. Check MyUI for course availability since offerings are subject to change.
b. Typically this course is offered in fall and spring semesters. Check MyUI for course availability since offerings are subject to change.
c. Enrollment in math courses requires completion of a placement exam.
d. Enrollment in chemistry courses requires completion of a placement exam.
e. Typically this course is offered in fall semesters only. Check MyUI for course availability since offerings are subject to change.
f. Students who intend to enroll in a Be Creative course with prerequisites must request a waiver by completing the Request Prerequisite Special Permission form on MyUI. See the College of Engineering General Education Component website for more information.
Students choose four engineering fundamentals courses from the following: ENGR:2110, ENGR:2120, ENGR:2130, ENGR:2710, ENGR:2720, ENGR:2730, ENGR:2750, ENGR:2995. Note that ENGR:2730 is a required course in some focus areas; students pursuing these focus areas should select another fundamentals course. See the industrial and systems engineering website or consult an advisor for more information.

Typically this course is offered in spring semesters only. Check MyUI for course availability since offerings are subject to change.

Students select one of several existing focus areas or work with a faculty member to individually design their own focus area. Focus areas require at least 24 s.h. of coursework, including one systems course and one math or science course in a different area or at a more advanced level than those required in the regular curriculum. Focus areas include some required courses and some elective courses. See the industrial and systems engineering website or consult an advisor for more information.

Students select a course from the GE CLAS Core Diversity and Inclusion area.

A full list of approved course subjects can be found on the College of Engineering General Education Component website.

Please see Academic Calendar, Office of the Registrar website for current degree application deadlines. Students should apply for a degree for the session in which all requirements will be met. For any questions on appropriate timing, contact your academic advisor or Graduation Services.