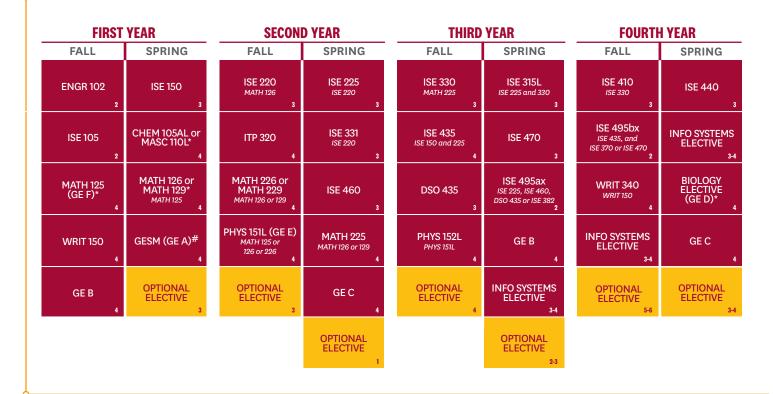
# Industrial and Systems Engineering (Information Systems)



# **MATHEMATICS (16 UNITS)**

MATH 125: Calculus I\* MATH 126 or 129: Calculus II\* MATH 226 or 229: Calculus III MATH 225: Linear Algebra and Diff. Equations

# **SCIENCE (16 UNITS)**

CHEM 105aL: General Chemistry\* or MASC 110L: Materials Science PHYS 151L: Mechanics and Thermodynamics PHYS 152L: Electricity and Magnetism BIOLOGY ELECTIVE

## **GENERAL EDUCATION (32 UNITS)**

GE A The Arts (1 Course)\* GE B Humanistic Inquiry (2 Courses) GE C Social Analysis (2 Courses) GE D Life Sciences (1 Course)\* GE F Physical Sciences (1 Course)\* GE F Quantitative Reasoning (1 Course)\* GE G,H Global Perspectives (2 Courses)\* GESM General Education Seminar (1 Course)

## WRITING (8 UNITS)

WRIT 150: Writing and Critical Reasoning WRIT 340: Advanced Writing

## **ENGINEERING (54 UNITS)**

DSO 435: Enterprise Data Architecture ENGR 102: Engineering Freshman Academy ISE 105: Intro. to Industrial Engineering ISE 150: Solving Engr. Problems via Computer Programming

- **ISE 220:** Probability Concepts in Engr.
- ISE 225: Engineering Statistics I
- **ISE 315L:** Engineering Project Management
- ISE 330: Intro. to Operations Research I
- **ISE 331:** Introduction to Operations Research: Stochastic Models
- ISE 410: Prod. Planning and Scheduling
- ISE 435: Discrete Systems Simulation
- ISE 440: Work, Technology and Organization
- **ISE 460:** Engineering Economy
- ISE 470: Human/Computer Interface Design
- ISE 495a: Senior Design Project
- ISE 495b: Senior Design Project

ITP 320: Enterprise information Systems APPROVED ENGINEERING ELECTIVES INFO SYSTEMS ELECTIVES

# SPECIAL NOTES

Courses with the \* symbol may be satisfied with AP, IB, or A-Level exams. See page 16 for more information.

**GESM#:** GESM can be taken from GE categories: A, B, C, or D. Courses listed in the guide are options for a four-year course plan.

**GE**: Engineering students are encouraged to satisfy GE G and GE H with a course that also satisfies a Core Literacy. GE H may be satisfied by AP/IB. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 15 for more information and consult your advisor for detailed assistance.

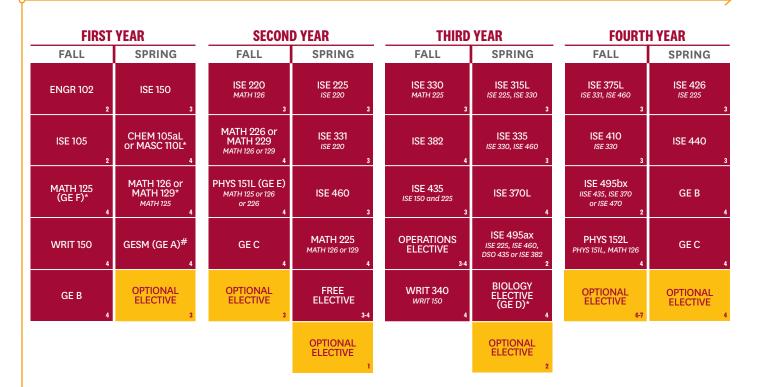
**BIOLOGY ELECTIVE:** Select one among BISC 103, BISC 104, BISC 230, or HBIO 205

**APPROVED ENGINEERING ELECTIVES:** See academic advisor for approved list of courses.

**INFO SYSTEMS ELECTIVES:** Select at least 8 units among the following courses: DSO 431 (4) & DSO 433 (4); ISE 350\* (3); ITP 482\* (3) & ITP 487\* (3). Also select at least 5 units of additional, approved coursework. A current approved class list is available from your advisor.

Some courses can fulfill both the Approved Engineering Electives and Info Systems Electives requirements. Discuss options with your academic advisor.

# **Industrial and Systems Engineering (Operations)**



# **MATHEMATICS (16 UNITS)**

MATH 125: Calculus I\* MATH 126 or 129: Calculus II\* MATH 226 or 229: Calculus III MATH 225: Linear Algebra and Diff. Equations

# **SCIENCE (12 UNITS)**

CHEM 105aL: General Chemistry\* or MASC 110L: Materials Science PHYS 151L: Mechanics and Thermodynamics PHYS 152L: Electricity and Magnetism BIOLOGY ELECTIVE

## **GENERAL EDUCATION (32 UNITS)**

GE A The Arts (1 Course)\* GE B Humanistic Inquiry (2 Courses) GE C Social Analysis (2 Courses) GE D Life Sciences (1 Course)\* GE E Physical Sciences (1 Course)\* GE F Quantitative Reasoning (1 Course)\* GE G,H Global Perspectives (2 Courses)\* GESM General Education Seminar (1 Course)

## WRITING (8 UNITS)

WRIT 150: Writing and Critical Reasoning WRIT 340: Advanced Writing

# **ENGINEERING (58) UNITS)**

- ENGR 102: Engineering Freshman Academy ISE 105: Intro. to Industrial Engineering ISE 150: Solving Engr. Problems via Computer Programming
- ISE 220: Probability Concepts in Engr.
- ISE 225: Engineering Statistics I
- **ISE 315L:** Engineering Project Management
- ISE 330: Intro. to Operations Research I
- ISE 331: Introduction to Operations Research: Stochastic Models
- ISE 335L: Supply Chain Design
- **ISE 370:** Human Factors in Work Design
- ISE 375L: Facilities Design
- ISE 382: Database Systems: Concept, Design and Implementation
- ISE 410: Prod. Planning and Scheduling
- ISE 426: Statistical Quality Control
- ISE 435: Discrete Systems Simulation
- ISE 440: Work, Technology and Organization
- ISE 460: Engineering Economy
- ISE 495a: Senior Design Project
- ISE 495b: Senior Design Project

#### **OPERATIONS ELECTIVES**

## **SPECIAL NOTES**

Courses with the \* symbol may be satisfied with AP, IB, or A-Level exams. See page 16 for more information.

**GESM#:** GESM can be taken from GE categories: A, B, C, or D. Courses listed in the guide are options for a four-year course plan.

**GE**: Engineering students are encouraged to satisfy GE G and GE H with a course that also satisfies a Core Literacy. GE H may be satisfied by AP/IB. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 15 for more information and consult your advisor for detailed assistance.

### APPROVED ENGINEERING ELECTIVES:

9 units of coursework. See academic advisor for approved list of courses.

**OPERATIONS ELECTIVES:** Select at least one among ISE 232L, ISE 327, ISE 350, or ACCT 410 Please note some courses can fulfill both the Approved Engineering Electives and Info Systems Electives requirements. Discuss options with your academic advisor.

**BIOLOGY ELECTIVE:** Select one among BISC 103, BISC 104, BISC 230, or HBIO 205.