

Industrial and Systems Engineering (Operations)

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
ENGR 102 2	ISE 150 3	ISE 220 MATH 126 4	ISE 225 ISE 220 4	ISE 330 MATH 225 4	ISE 315L ISE 225, ISE 330 4	ISE 375L ISE 331, ISE 460 4	ISE 426 ISE 225 4
ISE 105 2	CHEM 105aL or MASC 110L* 4	MATH 226 or MATH 229 MATH 126 or 129 4	ISE 350 4	ISE 382 4	ISE 335 ISE 330, ISE 460 4	ISE 410 ISE 330 4	ISE 440 4
MATH 125 (GE F)* 4	MATH 126 or MATH 129* MATH 125 4	PHYS 151L (GE E) MATH 125 or 126 or 226 4	FREE ELECTIVE 4	ISE 435 ISE 150 and 225 4	ISE 370L 4	ISE 495bx ISE 435, ISE 370 or ISE 470 2	GE B 4
WRIT 150 4	GESM (GE A)# 4	GE C 4	MATH 225 MATH 126 or 129 4	OPERATIONS ELECTIVE 2	ISE 495ax ISE 225, ISE 460, DSO 435 or ISE 382 2	PHYS 152L PHYS 151L, MATH 126 4	GE C 4
GE B 4	OPTIONAL ELECTIVE 3	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	WRIT 340 WRIT 150 4	BIOLOGY ELECTIVE (GE D)* 4	OPTIONAL ELECTIVE 4	OPTIONAL ELECTIVE 2

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 (64 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 335L: Supply Chain Design
ISE 350:
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 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 18 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 17 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.

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