

FIRST YEAR

FALL SEMESTER

GE A 4	ISE 105 2	MATH 125 (GE F) 4	WRIT 150 4	ENGR 102 2
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SPRING SEMESTER

GE B 4	CHEM 105aL or MASC 110L 4	MATH 126 or MATH 129 4	ISE 150 3	OPTIONAL ELECTIVE 3
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SECOND YEAR

FALL SEMESTER

GE C 4	ISE 220 MATH 126 3	MATH 226 or MATH 229 MATH 126 or MATH 129 4	PHYS 151L (GE E) MATH 125 or 126 or 226 4	OPTIONAL ELECTIVE 3
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SPRING SEMESTER

ISE 225 ISE 220 3	ISE 331 ISE 220 3	ISE 460 3	MATH 225 MATH 126 or MATH 129 4	APPROVED ENGINEERING ELECTIVE 3-4	OPTIONAL ELECTIVE 1
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THIRD YEAR

FALL SEMESTER

ISE 330 MATH 225 3	ISE 435 ISE 150 and ISE 225 3	ISE 382 4	APPROVED ENGINEERING ELECTIVE 3-4	WRIT 340 WRIT 150 3	OPTIONAL ELECTIVE 2
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SPRING SEMESTER

BIOLOGY ELECTIVE (GE D) 4	ISE 315L ISE 225, ISE 330 3	ISE 335 ISE 330, ISE 460 3	ISE 370L 4	ISE 495ax ISE 225, ISE 460 and DSO 435 or ISE 382 2	OPTIONAL ELECTIVE 2
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FOURTH YEAR

FALL SEMESTER

ISE 410 ISE 330 3	ISE 495bx ISE 315, ISE 435, ISE 495a and ISE 370 or ISE 470 2	PHYS 152L PHYS 151L, MATH 126 4	ISE 375L ISE 331, ISE 460 3	OPERATIONS ELECTIVE 3-4	OPTIONAL ELECTIVE 3
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SPRING SEMESTER

GE C 4	GE B 4	ISE 426 ISE 225 3	ISE 440 3	APPROVED ENGINEERING ELECTIVE 3-4
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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 (7 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 AP/IB symbol may be satisfied with AP, IB or A-Level exams. See page 17 for more information.

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 exam. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 21 for more information and consult your advisor for detailed assistance.

APPROVED ENGINEERING ELECTIVES: 9 units of coursework. See Advisor for current, approved list.

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 advisor.

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

FIRST YEAR

FALL SEMESTER

GE A 4	ISE 105 2	MATH 125 (GE F) 4	WRIT 150 4	ENGR 102 2
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SPRING SEMESTER

GE B 4	CHEM 105aL or MASC 110L 4	MATH 126 or MATH 129 MATH 125 4	ISE 150 3	OPTIONAL ELECTIVE 3
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SECOND YEAR

FALL SEMESTER

ISE 220 MATH 126 3	ITP 320 4	MATH 226 or MATH 229 MATH 126 or MATH 129 4	PHYS 151L (GE E) MATH 125 or 126 or 226 4	OPTIONAL ELECTIVE 3
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SPRING SEMESTER

GE C 4	ISE 225 ISE 220 3	ISE 331 ISE 220 3	ISE 460 3	MATH 225 MATH 126 or MATH 129 4	OPTIONAL ELECTIVE 1
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THIRD YEAR

FALL SEMESTER

ISE 330 MATH 225 3	ISE 435 ISE 150 and ISE 225 3	DSO 435 4	PHYS 152L PHYS 151L 4	APPROVED ENGINEERING ELECTIVE 3-4
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SPRING SEMESTER

GE B 4	ISE 315L ISE 225 and ISE 330 3	ISE 470 3	ISE 495ax ISE 225, ISE 460 and DSO 435 or ISE 382 2	APPROVED ENGINEERING ELECTIVE 3-4	OPTIONAL ELECTIVE 2
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FOURTH YEAR

FALL SEMESTER

ISE 410 ISE 330 3	ISE 495bx ISE 315, ISE 435, ISE 495a and ISE 370 or ISE 470 2	WRIT 340 WRIT 150 3	INFO SYSTEMS OR APPROVED ENG ELECTIVE 3-4	INFO SYSTEMS ELECTIVE 3-4	OPTIONAL ELECTIVE 3
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SPRING SEMESTER

BIOLOGY ELECTIVE (GE D) 4	GE C 4	ISE 440 3	INFO SYSTEMS ELECTIVE 3-4	INFO SYSTEMS ELECTIVE 3-4	OPTIONAL ELECTIVE 1
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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 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 (7 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 AP/IB symbol may be satisfied with AP, IB or A-Level exams. See page 17 for more information.

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 exam. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 21 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 Advisor for current, approved list.

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.

Please note some courses can fulfill both the Approved Engineering Electives and Info Systems Electives requirements. Discuss options with your advisor.