





FIRST YEAR

FALL SEMESTER

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

CHE 120 (MATH 125, CHEM 105aL) 3	CHE 205 MATH 125 3	MATH 126 or MATH 129 MATH 125  4	CHEM 105bL CHEM 105aL 4	PHYS 151L (GE E) MATH 125 or 126 or 226 4
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SECOND YEAR

FALL SEMESTER

CHE 330 (MATH 226) 3	CHEM 300L CHEM 105bL 4	MATH 226 or MATH 229 MATH 126 or MATH 129 4	PHYS 152L PHYS 151L, (MATH 226) 4	OPTIONAL ELECTIVE 3
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SPRING SEMESTER

GE B 4	WRIT 340 WRIT 150 3	MATH 245 MATH 226 or MATH 229 4	CHEM 322aL CHEM 105bL 4	CHE 350 CHEM 105bL 3
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THIRD YEAR

FALL SEMESTER

GE C 4	BISC 320L (GE D) CHEM 105bL 4	CHEM 430 CHEM 300L or 322aL, MATH 226, PHYS 151L 4	CHE 442 MATH 245 3	OPTIONAL ELECTIVE 3
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SPRING SEMESTER

GE B 4	BISC 330L BISC 320L, CHEM 322aL 4	BISC 300L BISC 320L, CHEM 322aL 4	CHE 443 (CHE 350, MATH 245) 3	CHE 444aL (CHE 350, 330, 442, 443) 3
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FOURTH YEAR

FALL SEMESTER

BIOELECTIVE 3-4	CHE 444bL CHE 350, CHE 443 3	CHE 405 MATH 245 or ISE 460 3	CHE 485 CHE 442, 443 3	CHE 445 CHE 443, MATH 245 2	OPTIONAL ELECTIVE 3-4
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SPRING SEMESTER

GE C 4	CHE 446 CHE 443, 445, MATH 245 2	CHE 460L CHE 120, (MATH 245) 3	CHE 480 3	CHE 489 CHE 330, BISC 320L 3	BME 410 CHEM 322aL 3
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MATHEMATICS (16 UNITS)

MATH 125: Calculus I
MATH 126 or **MATH 129:** Calculus II
MATH 226 or **MATH 229:** Calculus III
MATH 245: Mathematics of Phys. and Engr.

PHYSICS (8 UNITS)

PHYS 151L: Mechanics and Thermodynamics
PHYS 152L: Electricity and Magnetism

CHEMISTRY (20 UNITS)

CHEM 105AL: General Chemistry
CHEM 105BL: General Chemistry
CHEM 300L: Analytical Chemistry
CHEM 322AL: Organic Chemistry
CHEM 430: Physical Chemistry:
Thermodynamics & Kinetics

BIOLOGY (12 UNITS)

BISC 300L: Intro. to Microbiology
BISC 320L: Molecular Biology
BISC 330L: Biochemistry

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 (51-52 UNITS)

BME 410: Intro. to Biomaterials
CHE 120: Intro. to Chemical Engineering
CHE 205: Numerical Methods in Chemical Engineering
CHE 330: Chemical Engr. Thermodynamics
CHE 350: Intro. to Separation Processes
CHE 405: Applications of Probability & Statistics for Chemical Engineers
or ISE 460: Engineering Economy
CHE 442: Chemical Reactor Analysis
CHE 443: Viscous Flow
CHE 444ABL: Chem. Engineering Laboratory
CHE 445: Heat Transfer in ChE Processes
CHE 446: Mass Transfer in ChE Processes
CHE 460L: Chemical Process Dynamics
CHE 480: Chem. Process and Plant Design
CHE 485: Computer-Aided Plant Design
CHE 489: Biochemical Engineering
ENGR 102: Engineering Freshman Academy
BIOELECTIVE

* SPECIAL NOTES



Courses with this 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 pp. 16-17 for more information and consult your advisor for detailed assistance.

OPTIONAL ELECTIVES: Consult with your academic advisor to explore optional elective courses. These courses are not required.

BIOELECTIVE: Approved Bioengineering course or BISC 403

BISC 403: Must have 48 engineering units in order to register for this class