CHEMICAL ENGINEERING

FIRST YEAR

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

SPRING SEMESTER
CHE 120 (MATH 125, CHEM 105AL)  MATH 126 or MATH 129  CHEM 105BL  PHYS 151L (GE E)  OPTIONAL ELECTIVE

SECOND YEAR

FALL SEMESTER
CHE 330 (MATH 226)  MATH 226 or MATH 229  PHYS 152L  CHE 305 (MATH 125, MATH 126)  CHEM 105bL or CHEM 115bL

SPRING SEMESTER
GE B  CHEM 322aL  MATH 245  CHE 444aL  CHEM 430

THIRD YEAR

FALL SEMESTER
GE C  CHE ELECTIVE  CHEM 430  CHEM 443  CHE 444bL

SPRING SEMESTER
GE B  CHE 444cL  PHYS ELECTIVE  CHEM 447  MATH 245 and CHE 443

FOURTH YEAR

FALL SEMESTER
GE D  CHE 460L  CHEM 485  WRIT 340  CHEMISTRY ELECTIVE

SPRING SEMESTER
GE C  CHE 480  OPTION ELECTIVE  OPTIONAL ELECTIVE

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 322AL: Organic Chemistry
CHEM 430: Physical Chemistry: Thermodynamics & Kinetics
CHEMISTRY ELECTIVE: CHEM 300L: Analytical Chemistry
or CHEM 322BL: Organic Chemistry
or CHEM 431: Physical Chemistry: Quantum Mechanics

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)
CHE 120: Intro. to Chemical Engineering
CHE 305: Numerical & Statistical Analysis for Chemical Engineers
CHE 330: Chemical Engr. Thermodynamics
CHE 350: Intro. to Separation Processes
CHE 442: Chemical Reactor Design
CHE 443: Viscous Flow
CHE 444AL: Chemical Engineering Lab
CHE 444BL: Chemical Engineering Lab
CHE 444CL: Chemical Engineering Lab
CHE 447: Heat and Mass Transfer in Chemical Engineering Processes
CHE 460L: Chem. Proc. Dynamics & Control
CHE 480: Chem. Process and Plant Design
CHE 485: Computer Aided Chemical Process Design
ENGR 102: Engineering Freshman Academy

CHE ELECTIVE
ENGR ELECTIVE
OPTION ELECTIVE

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 examination. 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.

CHE ELECTIVE • Any upper-division CHE course
ENGR ELECTIVE • Any upper-division ENGR course (subject to advisor approval)
OPTION ELECTIVE: Any upper-division elective course in math, science or engineering (subject to advisor approval)