

BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING

Catalog Year Beginning WS 2004

Name _____
Student # _____

Transfer Credit From _____
Advisor _____

FRESHMAN Year First Semester	Cr	Gr
BE 10 – Study and Careers in Engineering	1	
Chem 1 – General Chemistry	4	
Chem 2 – General Chemistry Laboratory	1	
Engl 20 – Exposition and Argumentation	3	
Hist – 112, 175, 176 or Pol Sci – 90	3	
Math 14 – Calculus I for Engineers	4	
TOTAL	16	
SOPHOMORE YEAR First Semester	Cr	Gr
ChE 120 – Chemical Engineering Material Balances ¹	3	
Chem 221 – Organic Chemistry	3	
Econ 121 or 122 – Principles Micro/Macroeconomics	3	
Math 22 – Calculus with Analytical Geometry III	4	
Physics 24 – Engineering Physics II	4	
TOTAL	17	
JUNIOR YEAR First Semester	Cr	Gr
ChE 231 – Chemical Engineering Fluid Flow	3	
ChE 233 – Chemical Engineering Heat Transfer	2	
ChE 245 – Chemical Engineering Thermodynamics II ¹	3	
Chem 241 – Physical Chemistry	3	
General Education Upper Level Elective ³	3	
Humanities or Social Science Upper Level Elective ²	3	
TOTAL	17	
SENIOR YEAR First Semester	Cr	Gr
ChE 211 – Professional Practice and Ethics ⁶	1	
ChE 236 – Chemical Engineering Laboratory II ⁴	3	
ChE 251 – Process Dynamics and Control	3	
ChE 252 – Process Dynamics and Control Laboratory	1	
ChE 281 – Chemical Engineering Reactor Design	3	
ChE 3XX – Chemical Engineering Elective ⁷	3	
Free Elective ⁸	3	
TOTAL	17	

FRESHMAN YEAR Second Semester	Cr	Gr
BE 20 – Engineering Design w/ Computer Applications	3	
ChE 20 – Computers and Chemical Engineering or CmpSc73/77 or CmpSc74/78 or CmpSc 53/54	3	
Chem 3 – General Chemistry II	3	
Math 15 – Calculus II for Engineers	4	
Physics 23 – Engineering Physics I	4	
TOTAL	17	
SOPHOMORE YEAR Second Semester	Cr	Gr
ChE 141 – Chemical Engineering Thermodynamics I ¹	3	
ChE 145 – Chemical Process Materials	3	
Humanities Elective ²	3	
Humanities or Social Science Elective ²	3	
Math 204 – Elementary Differential Equations	3	
TOTAL	15	
JUNIOR YEAR Second Semester	Cr	Gr
ChE 234 – Chemical Engineering Laboratory I ⁴	2	
ChE 235 – Staged Mass Transfer	3	
ChE 237 – Continuous Mass Transfer	3	
ChE 247 – Molecular Chemical Engineering	3	
Chemistry & Laboratory Elective ⁵	4	
TOTAL	15	
SENIOR YEAR Second Semester	Cr	Gr
ChE 283 – Chemical Engineering Economics ⁴	2	
ChE 285 – Chemical Process Safety ⁴	3	
ChE 288 – Chemical Process Design ⁴	3	
ChE 3XX – Chemical Engineering Elective ⁷	3	
Free Elective ⁸	3	
TOTAL	14	

⁽¹⁾ A grade of "C" or better is required in Ch Eng 120 and in Ch Eng 141 to enroll in Ch Eng 245.

⁽²⁾ From approved list by School of Engineering.

⁽³⁾ General Education Upper Level Elective –all Hu/SS upper level electives and also: Engl 60, Engl 160, Sp&M 85, and Sp&M 181.

⁽⁴⁾ Writing emphasized course.

⁽⁵⁾ Chemistry & Laboratory Electives: Chem 51(2), 52(2) or Chem 223(3), 224(1) or Chem 243(3), 242(1) or Chem 361(3), 362(1) or BioSci 211(4).

⁽⁶⁾ FE exam must be taken as part of UMR Assessment.

⁽⁷⁾ Chemical Engineering Elective: Any Ch Eng 3XX class. But only one of Ch Eng 300, 390 or 390H can be used to fulfill this requirement.

⁽⁸⁾ Each student is required to take six hours of free electives in consultation with his/her academic advisor. Any courses outside of Engineering and Science must be at least three credit hours. ECE 281 recommended for preparation for FE exam.

Note: The minimum number of hours required for a degree in Chemical Engineering is 128.