SIX YEAR PLAN TO COMPLETE THE BS in CHEMICAL ENGINEERING (CHE_BS01

131 Units required — Department of Chemical Engineering

Semester 1

Course	Units
University 100	1
GE Class	3
Composition or Oral Communication	3
ENGR 101 Intro. Eng. Profession	1
GE Class	3
TOTAL UNITS	11

Semester 2

Course	Units
MATH 122 Calcusus I (GE B.1.a)	4
Oral Communication or Composition	3
CHEM 111A Gen. Chem. (GE B.1.b)	5
TOTAL UNITS	11

Semester 3

Course	Units
MATH 123 Calculus II	4
Critical Thinking	3
CHEM 111B Gen. Chemistry II	5
TOTAL UNITS	12

Semester 4

Course	Units
MATH 224 Calculus III	3
PHYS 151 Mechanics & Heat	4
GE Class	3
GE Class	3
TOTAL UNITS	13

Semester 5

Course	Units
CHE 200 Fund. Chem. Eng.	3
CHE 210 Computer Methods	3
PHYS 152 or EE 210 Electr. Magnet.	4
	2
TOTAL UNITS	12

Semester 6

Course	Units
CHEM 251 (not GE)or BIOL 211A (GE B1a) or MICR 200 (GE B1a)	4 or 5
MATH 370A Applied Math.	3
CHE 220 Chem. Eng. Thermo. I	3
GE Class	3
TOTAL UNITS	13 or 14

Semester 7

Course	Units
CHEM 320A Organic Chemistry I**	3
CHE 330 Separation Processes	4
CE 205 Statics	3
EE 211 Electrical Circuit	3
TOTAL UNITS	13

Semester 8

Course	Units
CHEM 320 B Organic Chemistry II**	5
CHE 320 Fluids	3
GE Class	3
TOTAL UNITS	11

Semester 9

Course	Units
CHE 410 Chem. Eng. Thermo. II	3
CHE 420 Heat & Mass Transfer	3
CHE xxx Chem. Eng. Elective	3
GE Capstone class	3
TOTAL UNITS	12

Semester 10

Course	Units
CHE 460 Chem. Process Control	3
CHE xxx Chem. Eng. Elective	3
Engineering Elective/Economics*	3
CHEM 377B Fund. Phys. Chem.	3
TOTAL UNITS	12

Semester 11

Course	Units
CHE 440 Chem. Eng. Lab I	2
CHE 430 Chem. React. Kinetics	3
GE Capstone class	3
TOTAL UNITS	8

Semester 12

Course	Units
CHE 450 Chem. Eng. Lab. II	2
CHE 460 Chem. Process Design	4
GE Capstone class	3
TOTAL UNITS	9

Most CH E courses are offered only once a year. It is essentail to take them in the semester shown.

Engineering majors may waive 6 units of General Education (Categories D.2 and B.1.a or C.3 or E)
The degree can be completed in 131 units only if the student uses BIOL 211A or MICR 200 in Semester 4 and an ECON GE class in Semester 8. Otherwise two additional GE courses are required.

* The degree requirement of "a course in economics" can be satisfied by any ECON course (can meet a GE requirement) or by CE 406 (Engineering Economics).(counts as major elective.)

A list of Approved Engineering Electives is available in the department office.
Engineering elective can be waived if student passes FE Exam.

**CHEM 327(3 units) plus approved laboratory science class (min. 4 units) may be substituted for CHEM 320A&B (8 units).