FIVE YEAR PLAN TO COMPLETE THE BS in CHEMICAL ENGINEERING (CHE_BS01)
131 Units required — Department of Chemical Engineering

Semester 1 Fall

Course	Units
University 100	1
Composition or Oral Communication	3
ENGR 101 Intro. Eng. Profession	1
MATH 122 Calculus I (GE B.2)	4
GE Class	3
TOTAL UNITS	12

Semester 2 Spring

Course	Units
CHEM 111A Gen. Chemistry I (GE B.1.b)	5
Math 123 Calculus II	4
Composition or Oral Communication	3
GE Class	3
TOTAL UNITS	15

Semester 3

Course	Units
Critical Thinking	3
PHYS 151 Mechanics & Heat	4
CHEM 111B Gen. Chemistry II	5
GE Class	3
TOTAL UNITS	15

Semester 4

Course	Units
PHYS 152 or EE 210 Electr. & Magnet.	4
MATH 224 Calculus III	4
CHEM 251 (not GE)or BIOL 211A (GE B1a) or MICR 200 (GE B1a)	4 or 5
GE Class	3
TOTAL UNITS	15 or 16

Semester 5

Course	Units
CH E 200 Chem. Eng. Fundamental	3
CH E 210 Computer Methods	3
CHEM 320A Organic Chem. I**	3
ECON class (GE D.2) or CE 406*	3
TOTAL UNITS	12

Semester 6

Course	Units
CHEM 320B Organic Chem. II**	5
CE 205 Statics	3
EE 211	3
CH E 220 Chem. Eng. Thermo. I	3
TOTAL UNITS	14

Semester 7

Course	Units
CH E 330 Separation Processes	4
CH E 410 Chem. Eng. Thermo II	3
CH E xxx Chem. Eng. Elective	3
GE Capstone Class	3
TOTAL UNITS	13

Semester 8

Course	Units
CH E 320 Fluids	3
CH E xxx Chem. Eng. Elective	3
CHEM 377B Fund. Phys. Chem.	3
MATH 370A Applied Math	3
TOTAL UNITS	12

Semester 9

Course	Units
CH E 420 Heat & Mass Transfer	3
CH E 430 Chemical Reactor Kinetics	3
CH E 440 Chem. Eng. Lab I	2
GE Capstone class	3
TOTAL UNITS	11

Semester 10

Course	Units
CH E 450 Chem. Eng. Lab II	2
CH E 460 Chem. Process Control	3
CH E 470 Chem. Process Design	4
GE Capstone class	3
TOTAL UNITS	12

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 majorEngineering Electiverequirement.)

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).