

BS IN CHEMICAL ENGINEERING

Below is a sample plan of study. Consult your degree audit for your program requirements.

Bachelor of Science in Chemical Engineering

First Term		Hours
CHEM 1230	General Chemistry I	4
CHEM 1280	General Chemistry Lab I	1
MATH 1850	Single Variable Calculus I	4
CHEE 1000	Orientation And Computing For Chemical and Environmental Engineers	3
ENGL 1110	College Composition I	3
Hours		15
Second Term		Hours
CHEM 1240	General Chemistry II	4
CHEM 1290	General Chemistry Lab II	1
MATH 1860	Single Variable Calculus II	4
COMM 1010	Comm Principles And Practices	3
CHEE 1010	Professional Development	1
CHEE 2010	Mass And Energy Balances	3
Hours		16
Third Term		Hours
PHYS 2130	Physics For Science And Engineering Majors I	5
MATH 2850	Elementary Multivariable Calculus	4
CHEM 2410	Organic Chemistry I	3
CHEM 2460	Organic Chemistry Laboratory I for Non-Majors	1
CHEE 2230	Chemical Engineering Thermodynamics I	3
Hours		16
Fourth Term		Hours
MATH 2860	Elementary Differential Equations	3
CHEM 2420	Organic Chemistry II	3
CHEM 2470	Organic Chemistry Laboratory II for Non-Majors	1
CHEE 2330	Chemical Engineering Thermodynamics II	3
Social Sciences Core		3
Elective		3
Hours		16
Fifth Term		Hours
CHEE 3940	Co-Op Work Experience	1
Hours		1
Sixth Term		Hours
PHYS 2140	Physics For Science And Engineering Majors II	5
Advanced Chemistry Elective		3

CHEE 2110	Process Fluid Mechanics	3
CHEE 3030	Separation Processes	3
CHEE 3110	Process Heat Transfer	3
Hours		17
Seventh Term		Hours
CHEE 3940	Co-Op Work Experience	1
Hours		1
Eighth Term		Hours
Advanced Chemistry Elective		3
Engineering Elective		3
CHEE 3120	Mass Transfer	3
CHEE 3300	Reactor Engineering And Design	3
CHEE 4500	Chemical Engineering Laboratory I	3
ENGL 2950	Science And Technical Report Writing	3
Hours		18
Ninth Term		Hours
CHEE 3940	Co-Op Work Experience	1
Hours		1
Tenth Term		Hours
Diversity of US		3
Social Sciences Core		3
Social Sciences Core		3
Engineering Elective		3
CHEE 4520	Chemical Process Economics And Design	3
Hours		15
Eleventh Term		Hours
Advanced Science Elective		3
CHEE Elective		3
CHEE 3400	Process Dynamics And Control	3
CHEE 4540	Chemical Process Simulation And Design	3
CHEE 4550	Chemical Engineering Laboratory II	3
Hours		15
Total Hours		131

Students will demonstrate an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics

Students will demonstrate an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors

Students will demonstrate an ability to communicate effectively with a range of audiences

Students will demonstrate an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts

Students will demonstrate an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives

Students will demonstrate an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions

Students will demonstrate an ability to acquire and apply new knowledge as needed, using appropriate learning strategies