

CHEMICAL ENGINEERING

Premedical Option (5 year plan)

FRESHMAN YEAR		
FALL		
C&PE 111	Introduction to the Profession	2
CHEM 184	Foundations of Chemistry I	5
ENGL 101	Composition	3
MATH 121	Calculus I	5
Total 15 hours		
SPRING		
C&PE 121	Introduction to Computers In Engineering	3
CHEM 188	Foundations of Chemistry II	5
ENGL 102	Composition & Literature	3
MATH 122	Calculus II	5
Total 16 hours		

SOPHOMORE YEAR		
FALL		
C&PE 211	Material & Energy Balances	3
MATH 220	Applied Differential Equations	3
MATH 290	Elementary Linear Algebra	2
CHEM 624	Organic Chemistry I Lecture	3
PHSX 211	General Physics I	4
Total 15 hours		
SPRING		
C&PE 221	Basic Engineering Thermodynamics	3
PHSX 212	General Physics II	4
BIOL 150	Molecular & Cellular Biology	3
CHEM 625	Organic Chemistry I Lab	2
CHEM 626	Organic Chemistry II Lecture	3
Total 15 hours		

JUNIOR YEAR - I		
FALL		
C&PE 511	Momentum Transfer	3
C&PE 522	Economic Appraisal of C&PE Projects	2
BIOL 350	Principles of Genetics*	3
_____	Engineering Elective	3
_____	Humanities or Social Sciences Electives	6
Total 17 hours		

JUNIOR YEAR - I		
SPRING		
C&PE 521	Heat Transfer	3
BIOL 152	Organismal Biology	4
BIOL 246/247	Principles of Human Physiology and Lab*	5
OR		
BIOL 646/647	Mammalian Physiology and Lab (preferred)*	6
CHEM 627	Organic Chemistry II Lab	2
Total 14-15 hours		

JUNIOR YEAR - II		
FALL		
C&PE 512	Process Engineering Thermodynamics	3
CHEM 646	Physical Chemistry I	3
BIOL 600	Introduction to Biochemistry**	4
_____	Engineering Elective	3
_____	Humanities or Social Sciences Elective	3
Total 16 hours		
SPRING		
C&PE 523	Mass Transfer	4
C&PE 524	Chemical Engineering Kinetics & Reactor Design	3
CHEM 648	Physical Chemistry II	4
BIOL 416	Cell Structure and Function*	3
MCAT Exam in June or July		Total 14 hours

SENIOR YEAR		
FALL		
C&PE 613	Chemical Engineering Design I	4
C&PE 615	Introduction to Process Dynamics and Control	3
C&PE 616	Chemical Engineering Laboratory I	3
C&PE 656	Introduction to Biomedical Engineering	3
_____	Engineering Elective	3
Total 16 hours		
SPRING		
C&PE 623	Chemical Engineering Design II	2
C&PE 624	Plant & Environmental Safety	3
C&PE 626	Chemical Engineering Laboratory II	3
ENGL_____	Advanced English Elective	3
_____	Engineering Elective	2
_____	Humanities or Social Sciences Elective	3
Total 16 hours		

137 credit hours required, 148 credit hours recommended for graduation
 This program without summer school provides opportunities to work volunteer, research and clinical internships. Revised October 2008 (MZS)

*Not required but recommended before MCAT.

** Recommended before medical school.