

CHEMICAL ENGINEERING Premedical Option (4 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
SUMMER		
ENGL ____	Advanced English Elective	3
_____	Humanities or Social Sciences Elective	3
		Total 6 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
CHEM 625	Organic Chemistry I Lab	2
BIOL 150	Principles of Molecular & Cellular Biology	4
		Total 17 hours
SPRING		
C&PE 221	Basic Engineering Thermodynamics	3
PHSX 211	General Physics I	4
BIOL 152	Principles of Organismal Biology	4
CHEM 626	Organic Chemistry II Lecture	3
CHEM 627	Organic Chemistry II Lab	2
		Total 16 hours
SUMMER		
PHSX 212	General Physics II	4
_____	Humanities or Social Sciences Elective	3
		Total 7 hours

JUNIOR YEAR		
FALL		
C&PE 511	Momentum Transfer	3
C&PE 512	Process Engineering Thermodynamics	3
C&PE 522	Economic Appraisal of C&PE Projects	2
CHEM 646	Physical Chemistry I	3
BIOL 350	Principles of Genetics*	3
_____	Humanities or Social Sciences Elective	3
		Total 17 hours
SPRING		
C&PE 521	Heat Transfer	3
C&PE 523	Mass Transfer	4
C&PE 524	Chemical Engineering Kinetics & Reactor Design	3
CHEM 648	Physical Chemistry II	4
BIOL 646/ 246	Mammalian or Human Physiology*	3-4
		Total 17-18 hours
SUMMER		
_____	Engineering Elective	3
_____	Humanities or Social Sciences Elective	3
		Total 6 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
BIOL 416	Cell Structure and Function*	3
BIOL 647/247	Mammalian or Human Physiology Lab*	2
_____	Engineering Elective	2
		Total 15 hours

137 credit hours required, 148 credit hours recommended for graduation
Revised October 2008 (MZS)

*Not required but recommended. Summer, medically-related internships provide insight and foundation. A five year program without summer school provides opportunity to take advantage of these internships. A biochemistry course (BIOL 600) is strongly recommended before entering medical school.