

Chemical Engineering Elective Tracks (pick a track)

Track 1	Biochemical Engineering Option		
	Chem 130A	Biochemistry	4
	ChE 192	Intro to Biochemical Engineering	3
	ChE 194	Biochemical Engineering Lab	3

Track 2	Semiconductor Processing Option		
	Chem 161A	Physical Chemistry I	3
	MatE 129	Integrated Circuit Fabrication	3
	MatE 153	Electronic and Optical Properties of Materials	3

Track 3	Environmental Health and Safety		
	ChE 131	Air Pollution	Select 1
	ChE 174	Hazardous Materials	(3 units)
	Chem 161A	Physical Chemistry I	3
	Chem 162L	Physical Chemistry I Lab	2
	ISE 112	Occupational Health Engineering	Select 1
	ISE 114	Safety Engineering	(3 units)

Track 4	Polymer/Ceramics Processing Option		
	MatE 154	Metals and Alloys	Select 1
	MatE 185	Ceramics	(3 units)
	MatE 186	Polymers	
	Chem 161A	Physical Chemistry I	3
	Chem 162L	Physical Chemistry I Lab	2
	MatE 143	Scanning Electron Microscope Lab	1

Track 5	Energy Option		
	ChE 199	Biofuels	3
	Chem 161A	Physical Chemistry I	3
	ME 172	Alternative Energy	Select 1
	ME 170	Solar Energy	(3 units)
	MatE 165	Photovoltaic Lab	1

Ideal Case for Transfer Students

Prior to coming - Completed: All Math, Physics, Lower division engineering and General Education

Fall 1

CHEM 112A ORGAN. CHEM. I	3
CHE 115 INDUS.CHEM.CALCS. (JR)	3
CHE 190 INTRO. TRANSPORT. (JR)	3
CHE 162 STATISTICS & ANALYSIS	3
Tech	3
SEMESTER TOTAL	15

<u>Engr 195A</u>	1
<u>CHE 158 KINETICS & RXNS. (SR)</u>	3
<u>CHE 160B UNIT OPER. II (SR)</u>	4
<u>CHE 161L UNIT OPS. LAB (SR,100W)</u>	2
<u>CHE 161 SAFETY & ETHICS</u>	1
Tech	3
SEMESTER TOTAL	14

Spring 2

CHE 151 THERMODYNAMICS	4
CHE 160A UNIT OPERATIONS I	4
<i>ENGR 100W ENGR. REPORTS (WST)</i>	3
CHEM 112AB ORGAN.CHEM.II	3
CHEM 113A ORGAN.CHEM.LAB	2
SEMESTER TOTAL	16

<u>CHE 162L UNIT OPS. LAB (100W)</u>	1
<u>CHE 165 PLANT DESIGN</u>	4
<u>CHE 185 PRO. DYN. & CONT.</u>	3
<u>Engr 195B</u>	1
Tech	3
SEMESTER TOTAL	12