

Chemical Engineering

St. Charles Community College					University of Missouri-Rolla				
Semester	SCC #	Title	Hours	Grade	UMR #	Title	Hours		
First	MAT 180	Calculus & Analytic Geometry I	5		MATH 014	Calculus w/Analytic Geometry I	4		
	CHM 110	General Chemistry I	3		CHEM 001	General Chemistry	4		
	CHM 113	General Chemistry I Lab	2		CHEM 002	General Chemistry Lab	1		
	EGR 104	Engineering Design	3		IDE 020	Engineering Design w/Computer Applications	3		
	ENG 101	English Composition I	3		ENG 020	Exposition & Argumentation	3		
	Total Semester Hours			16		Total Semester Hours			15
Second	MATH 230	Calculus & Analytic Geometry II	5		MATH 015	Calculus w/Analytic Geometry II	4		
	CHM 111	General Chemistry II	3		CHEM 003	General Chemistry	3		
	CHM 114	General Chemistry II Lab	2		CHEM 008	Quantitative Analysis	2		
	EGR 100	Intro to Engineering	1		FE 010	Study & Careers in Engineering	1		
	ECO 110 or ECO 120	Principles of Macroeconomics or Principles of Microeconomics	3		ECON 122 or ECON 121	Principles of Macroeconomics or Principles of Microeconomics	3		
	HIS 101	U.S. History to 1877	3		HIST 175	U.S. History to 1877	3		
	Total Semester Hours			17		Total Semester Hours			16
Third	MAT 240	Calculus & Analytic Geometry III	5		MATH 022	Calculus w/Analytic Geometry III	3		
	PHY 240 and PHY 243	College Physics I (4) and Lab (1)	5		PHYS 023	Engineering Physics I	5		
	EGR 170	Engineering Mechanics - Statics*	3		IDE 050	Engineering Mechanics - Statics*	3		
	CPT 182	Programming in C	3		GNCR	General Credit	3		
	Total Semester Hours			16		Total Semester Hours			14
Fourth	MAT 250	Differential Equations	3		MATH 204	Elementary Differential Equations	3		
	PHY 241 and PHY 244	College Physics II (4) and Lab (1)	5		PHYS 024	Engineering Physics II	5		
	ENG 102 or ENG 115 or SPE 101	English Composition II or Technical Writing or Oral Communications	3		ENG 060 or ENG 160 or SPMS 085	Writing and Research or Technical Writing or Principles of Speech	3		
	CPT 186	Object Oriented Programming in C++	3		CS 074, 078	Introduction to Programming Methodology and Lab	3		
		Humanities Elective	3			Humanities Elective	3		
	Total Semester Hours			17		Total Semester Hours			17

This is a guide; with the consent of your advisor you may choose to vary the sequence or combination of some courses in a manner appropriate to individual course requirements and prerequisites.
A grade of "C" or better is required in calculus and physics.

*Either EGR 170 (UMR BE 050) OR EGR 220 (UMR EE 281) will apply to a UMR Chemical Engineering degree as a Free Elective.