

Chemical Engineering

Semester	Missouri State University				University of Missouri-Rolla			
	MSU #	Title	Hours	Grade	UMR #	Title	Hours	
First	MTH 261	Analytic Geometry & Calculus I	5		MATH 014	Calculus w/Analytic Geometry I	4	
	CHM 160	General Chemistry I	4		CHEM 001	General Chemistry	4	
	HST 102 or HST 121 or HST 122 or PLS 101	Western Civilization II or History of US to 1877 or History of US 1877-present or American Democracy & Citizenship	3		HIST 112 or HIST 175 or HIST 176 or PS 090	Modern Western Civilization or American History to 1877 or American History since 1877 or American Government	3	
	ENG 110	Writing I	3		ENG 020	Exposition & Argumentation	3	
	Total Semester Hours			15	Total Semester Hours			14
Second	MTH 280	Analytic Geometry & Calculus II	5		MATH 015	Calculus w/Analytic Geometry II	4	
	PHY 203	Foundations of Physics I	5		PHYS 023	Engineering Physics I	5	
	CHM 170	General Chemistry II	3		CHEM 003	General Chemistry	3	
	CHM 175	General Chemistry Lab	2		CHEM 002	General Chemistry Lab	1	
Total Semester Hours			15	Total Semester Hours			13	
Third	MTH 302	Multivariate Calculus	3		MATH 022	Calculus w/Analytic Geometry III	4	
	PHY 204	Foundations of Physics II	5		PHYS 024	Engineering Physics II	4	
	CHM 310	Organic Chemistry I	5		CHEM 221, 222	Organic Chemistry I and Lab	4	
	ECO 155 or ECO 165	Principles of Macroeconomics or Principles of Microeconomics	3		ECON 122 or ECON 121	Principles of Macroeconomics or Principles of Microeconomics	3	
	Total Semester Hours			16	Total Semester Hours			15
Fourth	MTH 303	Differential Equations	3		MATH 204	Elementary Differential Equations	3	
	CHM 330**	Quantitative Analysis	5		CHEM 51, 52**	Elementary Quantitative Analysis and Lab	5	
	CSC 125	Introduction to C++ Programming	3		CS 74, 78	Intro to Programming Methodology and Lab	3	
	ENG 120 or ENG 321 or COM 115	Writing II or Beginning Technical Writing or Fundamentals of Public Speaking	3		ENG 060 or ENG 160 or SPMS 085	Writing and Research or Technical Writing or Principles of Speech	3	
	Total Semester Hours			14	Total Semester Hours			14

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.

**Will apply to UMR Chemical Engineering degree as an Advanced Chemistry Elective.