

Chemical Engineering

Southeast Missouri State University					University of Missouri-Rolla		
Semester	SEMO #	Title	Hours	Grade	UMR #	Title	Hours
First	MA 140	Analytic Geometry and Calculus I	5		MATH 014	Calculus with Analytic Geometry I	5
	CH 185	General Chemistry I	5		CHEM 001 and CHEM 002	General Chemistry (4) and Lab (1)	5
	EP 100	Physics and Engineering Concepts	1		FE 010	Studies and Careers in Engineering	1
	EN 100	English Composition	3		ENG 020	Exposition and Argumentation	3
		Total Semester Hours	14			Total Semester Hours	14
Second	MA 145	Analytic Geometry and Calculus II	4		MATH 015	Calculus with Analytic Geometry II	5
	PH 230	University Physics I	5		PHYS 023	Engineering Physics I	4
	CH 186	General Chemistry II	2		CHEM 003	General Chemistry	3
	CH 187	Qualitative Analysis	2		CHEM 008	Qualitative Analysis	2
	EN 140 or SC 105	Rhetoric and Critical Thinking Fundamentals of Oral Communication	3		ENG 060 or SPMS 085	Writing and Research or Principles of Speech	3
	PS 103	U.S. Political Systems	3		PS 090	American Government	3
			Total Semester Hours	19			Total Semester Hours
Third	MA 240*	Analytic Geometry and Calculus III	3		MATH 022*	Calculus with Analytic Geometry III	4
	PH 231	General Physics I	5		PHYS 024	Engineering Physics II	4
	CH 341	Organic Chemistry I	3		CHEM 221	Organic Chemistry I	3
	CH 271	Quantitative Analysis	4		CHEM 051 and CHEM 052	Elementary Quantitative Chemical Analysis (2) and Lab (2)	4
	CS 155	Computer Science I	4		CS 074, 078	Intro to Programming Methodology and Lab	3
		Total Semester Hours	19			Total Semester Hours	18
Fourth	MA 350	Differential Equations I	3		MATH 204	Elementary Differential Equations	3
	MA 245*	Vector Calculus	2		GNCR*	General Credit	2
	CH 343	Organic Chemistry II	3		CHEM 223	Organic Chemistry II	3
	CH 344	Organic Chemistry II Lab	2		CHEM 224	Organic Chemistry II Lab	1
	EC 215 or EC 225	Principles of Microeconomics or Principles of Macroeconomics	3		ECON 121 or ECON 122	Principles of Microeconomics or Principles of Macroeconomics	3
			Total Semester Hours	13			Total Semester Hours

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.

*Both SEMO MA 240 and MA 245 must be taken to receive credit for UMR Math 022.

As your schedule permits, you may also take: CH 311 (UMR CHEM 241); EP 261 (UMR IDE 050); AND EP 260 (UMR EE 281).