

Geological Engineering

Southeast Missouri State University				University of Missouri-Rolla			
Semester	SEMO #	Title	Hours	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		
Second	MA 145	Analytic Geometry and Calculus II	4	MATH 015	Calculus with Analytic Geometry II	5	
	PH 230	General Physics I	5	PHYS 023	Engineering Physics I	4	
	CH 186	General Chemistry II	3	CHEM 003	General Chemistry	3	
	GO 110	Physical Geology	3	GEO 051	Physical Geology	4	
		Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
Total Semester Hours			18	Total Semester Hours			
Third	MA 240*	Analytic Geometry and Calculus III	3	MATH 022*	Calculus with Analytic Geometry III	4	
	PH 231	General Physics II	5	PHYS 024	Engineering Physics II	4	
	EP 261	Engineering Mechanics Statics	3	IDE 050	Engineering Mechanics - Statics	3	
	CS 155	Computer Science I	4	CS 074, 078	Intro to Programming Methodology and Lab	3	
	US 105 or US 107 or PS 103	American History I or American History II or U.S. Political Systems	3	HIST 175 or HIST 176 or PS 090	American History to 1877 or American History since 1877 or American Government	3	
	Total Semester Hours			18	Total Semester Hours		
	Total Semester Hours			18	Total Semester Hours		
Fourth	MA 350	Differential Equations I	3	MATH 204	Elementary Differential Equations	3	
	MA 245*	Vector Calculus	2	GNCR*	General Credit	2	
	EP 262	Engineering Mechanics Dynamics	3	IDE 150	Engineering Mechanics-Dynamics	2	
	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	
		Humanities/Social Science Elective	3		Humanities/Social Science Elective	3	
	Total Semester Hours			14	Total Semester Hours		
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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.