

Civil Engineering

Southwestern Illinois College					University of Missouri-Rolla		
Semester	SWIC #	Title	Hours	Grade	UMR #	Title	Hours
First	MATH 203	Analytic Geometry & Calculus I	5		MATH 014	Calculus w/Analytic Geometry I	4
	CHEM 105	Inorganic Chemistry I	5		CHEM 001, 002	General Chemistry and Lab	5
		Pending Evaluation			IDE 020	Engineering Design with Computer Application	3
	ENG 101	Rhetoric & Composition I	3		ENG 020	Exposition & Argumentation	3
		Total Semester Hours	13			Total Semester Hours	15
Second	MATH 204	Analytic Geometry & Calculus II	5		MATH 015	Calculus w/Analytic Geometry II	4
	PHYS 204*	Engineering Physics (Mechanics)	4		GNCR*	General Credit	4
	HIST 102 or HIST 180 or HIST 181 or	World Civilization II or US History to 1865 or US History 1865-present or	3		HIST 112 or HIST 175 or HIST 176 or	Modern Western Civilization or American History to 1877 or American History since 1877 or	3
	POLS 150	Intro to American Government			PS 090	American Government	
	ENG 102 or SPCH 151	Rhetoric & Composition II or Fundamentals of Public Speaking	3		ENG 060 or SPMS 085	Writing & Research or Principles of Speech	3
		Total Semester Hours	15			Total Semester Hours	14
Third	MATH 205	Analytic Geometry & Calculus III	4		MATH 022	Calculus w/Analytic Geometry III	4
	PHYS 205*	Engineering Physics (Heat, Electricity, and Magnetism)	4		PHYS 023*	Engineering Physics I	4
	PHYS 263	Analytical Mechanics - Statics	3		IDE 050	Engineering Mechanics - Statics	3
	CIS 250 or CIS 260**	C++ Programming I or Advanced C++ Programming II	3		CS 74,78 or CS 53, 54**	Intro to Programming Methodology and Lab (3) or Intro to Programming and Lab (4)	3
		Total Semester Hours	14			Total Semester Hours	14
Fourth	MATH 290	Differential Equations	3		MATH 204	Elementary Differential Equations	3
	PHYS 206	Engineering Physics (Wave, et al)	4		PHYS 024	Engineering Physics II	4
	PHYS 264	Analytical Mechanics - Dynamics	3		EME 160	Engineering Mechanics - Dynamics	3
	ECON 201 or ECON 202	Principles of Economics I (Macro) or Principles of Economics II (Micro)	3		ECON 122 or ECON 121	Principles of Macroeconomics or Principles of Microeconomics	3
		Humanities/Social Science Elective	3			Humanities/Social Science Elective	3
		Total Semester Hours	16			Total Semester Hours	16

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.

*The combination of SWIC PHYS 204 & 205 is equivalent to UMR PHYS 023.

**UMR CS 74, 78 or CS 53, 54 will be substituted for CivE 003.