

Computer Science

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	
	ENG 101	English Composition I	3		ENG 020	Exposition & Argumentation	3	
		Humanities Elective	3			Humanities Elective	3	
		Social Science Elective	3			Social Science Elective	3	
	Total Semester Hours			19		Total Semester Hours		
Second	MATH 230	Calculus & Analytic Geometry II	5		MATH 015	Calculus w/Analytic Geometry II	4	
	HIS 146 or HIS 101 or HIS 102 or POL 101	Western Civ of Modern Europe or US History to 1877 or US History since 1877 or American Government	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	
	SPE 101	Oral Communications	3		SPMS 085	Principles of Speech	3	
	ENG 102	English Composition II	3		ENG 060	Writing & Research	3	
		Literature Elective	3			Literature Elective	3	
		Humanities Elective	3			Humanities Elective	3	
	Total Semester Hours			20		Total Semester Hours		
	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 220		Electrical Circuits	3		EE 281	Electrical Circuits	3	
CPT 182**		Programming in C	3		GNCR**	General Credit	3	
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	
Total Semester Hours			19		Total Semester Hours			
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	
	CPT 186**	Object Oriented Programming in C++	3		CS 074, 078**	Introduction to Programming Methodology and Lab	3	
		Humanities/Social Science Elective	3			Humanities/Social Science Elective	3	
Total Semester Hours			14		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.

*You may substitute either PHY 125 (UMR GEOL 051) or BIO 101 & 103 (UMR BIO 110 & 112) for CHEM 110 & 113 (UMR CHEM 001 & 002).

**These courses are recommended preparatory courses but do not meet degree requirements for Computer Engineering and Computer Science majors at UMR. These majors must take CS 53 and 54 UMR.