

# University of Missouri

## Bachelor of Science in Computer Engineering

### Transfer Guide for Crowder College

This plan is intended only as a general guide based on requirements in the 2013-2014 University of Missouri undergraduate catalog. Check the following web sites for current course descriptions, prerequisites, course equivalencies and other specific details about the Computer Engineering major:

- 1) College Catalog (<http://registrar.missouri.edu/>)
- 2) Transfer Equivalencies (<http://transfercourses.missouri.edu>)
- 3) General Education (<http://generaleducation.missouri.edu>)
- 4) Electrical Engineering (<http://engineering.missouri.edu/ece/degree-programs/>)

For more information, contact the Department of Electrical and Computer Engineering at 573-882-2648 or [Beattyt@missouri.edu](mailto:Beattyt@missouri.edu).

University of Missouri		Crowder College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
<b>Mathematics (22 credits)</b>		
MATH 1500 Analytic Geometry and Calculus I	5	MATH 150 & 160 Calc I, Part I & II (5)
MATH 1700 Calculus II	5	MATH 201 Calc II (5)
MATH 2300 Calculus III	3	MATH 202 Calc III (5)
MATH 4100 Differential Equations	3	MATH 210 Differential Equations (3)
STAT 4710 Intro to Mathematical Statistics	3	None
Math 2320 Discrete Mathematical Structures	3	None
<b>Physics and Chemistry (14 credits)</b>		
CHEM 1320 College Chemistry I	4	CHEM 111 Gen Chemistry I (5)
PHYSICS 2750 University Physics I	5	PHYS 190 Gen Physics I (5)
PHYSICS 2760 University Physics II	5	PHYS 210 Gen Physics II (5)
<b>English Exposition and Argumentation (3 credits)</b>		
ENGLSH 1000 Exposition and Argumentation	3	ENGL 102 Adv English Comp (3) OR eng 104 Honors English Comp (3)
<b>Behavioral &amp; Social Science (9 credits)</b> Courses from at least two different departments.		
State Requirement in Government or History	3	Select <a href="#">state requirement</a> from the general education list.
Social or Behavioral Science Elective	3	Select <a href="#">social</a> or <a href="#">behavioral</a> sciences from the general education list.
Social or Behavioral Science Elective	3	
<b>Humanities/Fine Arts (Option 1 – Conventional Track) (9 credits)</b> ▪ Only one humanities/fine arts track (Conventional or Foreign Language) must be completed ▪ Courses from at least two different departments ▪ A maximum of 3 credit hours for skills classes ▪ No foreign language courses may be used for this option		
Humanity 1	3	Select <a href="#">humanities</a> from the general education list.
Humanity 2	3	
Humanity 3	3	
<b>Humanities/Fine Arts (Option 2 - Foreign Language Track) (12 credits)</b> ▪ Only one humanities/fine arts track (Conventional or Foreign Language) must be completed ▪ Minimum of 12 college transcribed hours in a single foreign language ▪ Satisfies the 2000-level requirement		
Foreign Language 1	5	Select <a href="#">foreign language</a> courses from the general education list.
Foreign Language 2	5	
Foreign Language 3	3	
<b>Upper Level General Education (3 credits)</b>		
At least 3 credit hours of behavioral science, social science or humanity must be at the 2000-level or above		
<input checked="" type="checkbox"/> Upper-level general education courses may also count toward behavioral sciences, social sciences, or humanities.		
Upper Level Course	3	Select 200/2000-level behavioral science, social science, or humanity from the general education list. Level is based upon the community college course number, NOT the MU equivalent.
<b>Writing Intensive (6 credits)</b>		
Writing intensive course (humanity, social or behavioral science or technical elective)	3	Must be taken at MU
ECE 4970 Capstone Design	3	Must be taken at MU
<b>Engineering (59 credits)</b>		
CS 1050 Algorithm Design and Programming	3	None
CS 2050 Algorithm Design and Programming II	3	None
<b>Select one of the following:</b>		
ENGINR 1200 Statics and Elementary Strength of Materials	3	None
ENGINR 2300 Engineering Thermodynamics		
IMSE 2710 Engineering Economic Analysis		
ECE 1000 Intro to Electrical and Computer Engineering	2	None
ECE 1210 Intro to Logic Systems	3	None

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COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
ECE 2100 Circuit Theory I	4	None
ECE 3210 Microprocessor Engineering	4	None
ECE 3220 Computing for Embedded Systems	3	None
ECE 3810 Circuit Theory II	4	None
ECE 3410 Electronic Circuits and Signals I	4	None
ECE 3830 Signals and Linear Systems	3	None
ECE 4220 Real Time Embedded Systems	3	None
ECE 4250 VHDL and Programmable Logic Devices	4	None
ECE 4270 Microcomputer Architecture and Interfacing	4	None
ECE 3110 Electrical and Computer Engineering Projects	3	None
ECE 4970 Senior Capstone Design( <i>Writing Intensive</i> )	3	None
<b>Technical Elective (9 credits)</b>		
ECE or CS 3000+ or Math, Physics, Chemistry, BioE, ChemE, Civil, IMSE, MAE Engr.2000+	9	None
<b>ECE Electives (6 credits)</b>		
ECE Electives (4000+)	6	None
<b>Free Electives (1 credit)</b>		
<b>Total Hours for BS in Computer Engineering</b>	<b>126</b>	

# General Education Courses

## Crowder College

<u>Crowder College Course</u>	<u>MU Equivalent</u>	<u>Crowder College Course</u>	<u>MU Equivalent</u>
<b>Behavioral Sciences</b>		<b>Social Sciences (◆= State Requirement)</b>	
PSYC 101 Gen Psychology (3)	PSYCH 1000	AGEC 123 Prin Agric Econ (3)	AG_EC 1041
PSYC 110 Psych of Pers Adj (3)	PSYCH BEH	BSAD 108 Personal Finance (3)	FINANC 1000
PSYC 210 Child Psych (3)	PSYCH 2410	ECON 201 Prin of Econ I (Macro) (3)	ECONOM 1015
PSYC 215 Adolescent Psych (3)	PSYCH BEH	ECON 202 Prin of Econ II (Micro) (3)	ECONOM 1014
SOC 101 Gen Sociology (3)	SOCIOLOG 1000	GEOG 101 Prin of Geography (3)	GEOG SSC
SOC 103 Marriage & Family (3)	SOCIOLOG 3420	HIST 101 Western Civil I (3)	HIST 1500
		HIST 102 Western Civil II (3)	HIST 1510
		◆HIST 106 US History I (3)	HIST 1100
		◆HIST 107 US History II (3)	HIST 1200
		PLSC 102 MO Constitution (1)	POL_SC SSC
		◆PLSC 103 Nat, State, Local Govt (3)	POL_SC 1100
		◆PLSC 104 Nat, St, Local Govt Hnr (3)	POL_SC 1100
		PLSC 201 Cont Pol Act of US (2)	POL_SC SSC
		◆PLSC 205 Intro Political Sci (3)	POL_SC 1700
<b>Humanities</b>		<b>Foreign Language</b>	
ART 101 Art Appreciation (3)	ART_GNR1020	FREN 101 Begin French I (3)	FRENCH 1100A
COMM 101 Intro to Mass Comm (3)	COMMUN 2100	FREN 102 Begin French II (3)	FRENCH 1100B
ENGL 109 Intro to Literature (3)	ENGLISH LIT	FREN 201 Interm French I (3)	FRENCH 1200
ENGL 120 Masterpieces Wld Lit I (3)	ENGLISH LIT	FREN 202 Interm French II (3)	FRENCH 2100
ENGL 125 Masterpiece World Lit II (3)	ENGLISH LIT	SPAN 101 Begin Spanish I (3)	SPAN 1100A
HUM 102 Cultural Diversity (3)	MISC HUM	SPAN 102 Begin Spanish II (3)	SPAN 1100B
MUSC 101 Music Appreciation (3)	MUSIC_N1310	SPAN 105 Convers Span (3)	SPAN 1100A
PHIL 101 Intro Western Phil (3)	PHIL 1000	SPAN 106 Convers Span II (3)	SPAN 1100B
PHIL 121 World Religions (3)	REL_ST 2110	SPAN 201 Interm Spanish (3)	SPAN 1200
PHIL 201 Logic (3)	PHIL 1200	SPAN 202 Interm Spanish II (3)	SPAN 2100
PHIL 202 Ethics (3)	PHIL 1100		
SPAN 103 Intro Hispanic Culture (3)	SPAN HUM		
SPCH 101 Fund of Speech (3)	COMMUN 1200		
TA 105 Acting I (3)	THEATR 1400		
TA 205 Intro Theatre (3)	THEATR 1100		