

# University of Missouri

## Bachelor of Science in Computer Engineering

### Transfer Guide for Jefferson 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		Jefferson College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
<b>Mathematics (22 credits)</b>		
MATH 1500 Analytic Geometry and Calculus I	5	MTH 180 Calculus I (5)
MATH 1700 Calculus II	5	MTH 185 Calculus II (5)
MATH 2300 Calculus III	3	MTH 201 Calculus III (5)
MATH 4100 Differential Equations	3	MTH 205 Differential Equat (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	CHM 111 Gen Chemistry I (5)
PHYSCS 2750 University Physics I	5	PHY 223 Gen Physics I (4)
PHYSCS 2760 University Physics II	5	PHY 224 Gen Physics II (4)
<b>English Exposition and Argumentation (3 credits)</b>		
ENGLISH 1000 Exposition and Argumentation	3	ENG 102 English Comp II (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	EGR 228 Engr Mech-Statics (3) or
ENGINR 2300 Engineering Thermodynamics		None
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

## Jefferson College

<u>Jefferson College Course</u>	<u>MU Equivalent</u>	<u>Jefferson College Course</u>	<u>MU Equivalent</u>
<b>Behavioral Sciences</b>		<b>Social Sciences (◆=State Requirement)</b>	
PSY 101 Gen Psychology (3)	PSYCH 1000	ECO 100 Intro to Econ (3)	ECONOM SSC
PSY 101H Hon Gen Psych (3)	PSYCH 1000	ECO 101 Macroeconomics (3)	ECONOM 1015
PSY 120 Psych of Pers Adjust (3)	PSYCH BEH	ECO 102 Microeconomics (3)	ECONOM 1014
PSY 201 Child Development (3)	PSYCH 2410	GEO 103 World Reg Geog (3)	GEOG SSC
PSY 202 Adolescent Psych (3)	PSYCH BEH	GEO 120 Sem in Global Stds (1)	MISC SSC
PSY 205 Human Development (3)	PSYCH BEH	◆HST 103 US Hist to Reconstr (3)	HIST 1100
SOC 101 Gen Sociology (3)	SOCIOL 1000	◆HST 103H Honors US Hist to Recon (3)	HIST 1100
SOC 125 Human Diversity (3)	SOCIOL BEH	◆HST 104 US Hist from Reconstr (3)	HIST 1200
SOC 210 Alcohol, Drugs & Soc (3)	SOCIOL BEH	◆HST 104H Honors US Hist from Recon (3)	HIST 1200
SOC 240 Marriage & Family (3)	SOCIOL 3420	HST 130 American Stds (3)	MISC SSC
SOC 250 Social Disorganization (3)	SOCIOL 1650	HST 201 Ancnt/Medieval Civil (3)	HIST 1500
		HST 202 Renaiss to Mod Euro (3)	HIST 1510
		HST 203 Modern Europe (3)	HIST 3540 HST 205
		African-Amer Hist (3)	HIST 1410
<b>Humanities</b>		HST 210 Asian Civil (3)	HIST SSC
ART 101 Art Appreciation (3)	ART_GNR1020	HST 230 Women in Amer Hist (3)	HIST 2400
ART 103 Survey of Art I (3)	AR_H_A 1110	HST 235 Women in Hist (3)	HIST 2400
ART 105 Survey of Art II (3)	AR_H_A 1120	◆HST 240 Missouri Hist (3)	HIST 2440
ART 107 Modern Art (3)	AR_H_A HUM	◆PSC 102 US & MO Govt Const (3)	POL_SC 1100
ART 112 Intro to Art (3)	ART_GNR1010	PSC 103 Current Pol Iss (3)	POL_SC SSC
ENG 105 Lit Types:Ptry/Short St (3)	ENGLISH LIT	PSC 155 Internat Relations (3)	POL_SC 1400
ENG 106 Lit Types:Drama/Novel (3)	ENGLISH LIT	PSC 250 IS: Model UN (3)	POL_SC SSC
ENG 122 Film Apprec: Intro Cinema (3)	FILM_S HUM	PSC 250H IS: Model UN Hnr (3)	POL_SC SSC
ENG 143 Lit for Children (3)	ENGLISH LIT		
ENG 215 World Lit Before 1650 (3)	ENGLISH LIT	<b>Foreign Language</b>	
ENG 215H Honors World Lit (3)	ENGLISH LIT	FRN 101 Begin French (5)	FRENCH 1100
ENG 216 World Lit After 1650 (3)	ENGLISH LIT	FRN 102 Interm French (5)	FRENCH 1200
ENG 225 Engl Lit Before 1800 (3)	ENGLISH 2200	FRN 201 Fren Gram & Comp (3)	FRENCH 2100
ENG 226 Engl Lit After 1800 (3)	ENGLISH 2200	GRM 101 Begin German (4)	GERMAN 1100
ENG 228 Amer Lit Before 1865 (3)	ENGLISH 2300	GRM 102 Intermed German (4)	GERMAN 1200
ENG 229 Amer Lit After 1865 (3)	ENGLISH 2300	SPN 101 Begin Spanish (5)	SPAN 1100
ENG 235 Shakespeare Plays (3)	ENGLISH LIT	SPN 102 Interm Spanish (5)	SPAN 1200
ENG 235H Honors Shakespeare (3)	ENGLISH LIT	SPN 201 Span Gram & Comp (3)	SPAN 2100
ENG 250 Mythology (3)	CL_HUM 1060		
ENG 250H Honors Mythology (3)	CL_HUM 1060		
ENG 255H Honors Lit Types Poetry (3)	ENGLISH LIT		
HUM 125 Sem in World Cult (1-3)	MISC HUM		
HUM 250H Honors Hum (3)	MISC HUM		
HUM 260 Liberal Arts Sem (3)	MISC HUM		
HUM 260H Hon Liberal Arts Sem (3)	MISC HUM		
MSC 101 Fund of Music (3)	MUSIC_N1211		
MSC 103 Music Theory I (4)	MUS_THR1220 & 1230		
MSC 104 Music Theory II (4)	MUS_THR1221 & 1231		
MSC 131 Appreciation of Music (3)	MUSIC_N1310		
MSC 133 Jazz Appreciation (3)	MUSIC_NHUM		
MSC 135 Hist of Rock & Roll (3)	MUSIC_NHUM		
MSC 137 World Music (3)	MUSIC_N1313		
MSC 231 Music Lit Before 1750 (3)	MUSIC_NHUM		
MSC 232 Music Lit After 1750 (3)	MUSIC_NHUM		
PHL 101 Logic (3)	PHIL 1200		
PHL 102 Intro to Phil (3)	PHIL 1000		
PHL 201 World Religions (3)	REL_ST 2110		
PHL 202 Ethics (3)	PHIL 1100		
PHL 202H Honors Ethics (3)	PHIL 1100		
PHL 203 Medical Ethics (3)	PHIL 1150		
SPD 120 Theatre Appreciation (3)	THEATR 1100		
SPD 120H Hnrs Theatre Appreciatn (3)	THEATR 1100		
SPD 175 Public Speaking (3)	COMMUN 1200		
SPN 253 Span Reading (3)	SPAN HUM		