

University of Missouri

Bachelor of Science in Computer Engineering

Transfer Guide for St. Louis Community 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.

University of Missouri		St. Louis Community College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
Mathematics (22 credits)		
MATH 1500 Analytic Geometry and Calculus I	5	MTH 210 Anl Geom/Calc I (5)
MATH 1700 Calculus II	5	MTH 220 Anl Geom/Calc II (5)
MATH 2300 Calculus III	3	MTH 230 Anl Geom/Calc III (5)
MATH 4100 Differential Equations	3	MTH 240 Diff Equations (3)
STAT 4710 Intro to Mathematical Statistics	3	None
Math 2320 Discrete Mathematical Structures	3	MTH 212 Discrete Math (MRP) (3)
Physics and Chemistry (14 credits)		
CHEM 1320 College Chemistry I	4	CHM 105 Gen Chemistry I (5)
PHYSICS 2750 University Physics I	5	PHY 122 Engr Physics I (5)
PHYSICS 2760 University Physics II	5	PHY 223 Engr Physics II (5)
English Exposition and Argumentation (3 credits)		
ENGLISH 1000 Exposition and Argumentation	3	ENG 102 College Comp II (3)
Behavioral & Social Science (9 credits) Courses from at least two different departments.		
State Requirement in Government or History	3	Select state requirement from the general education list.
Social or Behavioral Science Elective	3	Select social or behavioral sciences from the general education list.
Social or Behavioral Science Elective	3	
Humanities/Fine Arts (Option 1 – Conventional Track) (9 credits) ▪ 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 humanities from the general education list.
Humanity 2	3	
Humanity 3	3	
Humanities/Fine Arts (Option 2 - Foreign Language Track) (12 credits) ▪ 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 foreign language courses from the general education list.
Foreign Language 2	5	
Foreign Language 3	3	
Upper Level General Education (3 credits)		
At least 3 credit hours of behavioral science, social science or humanity must be at the 2000-level or above		
☒ 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.
Writing Intensive (6 credits)		
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
Engineering (59 credits)		
CS 1050 Algorithm Design and Programming	3	None
CS 2050 Algorithm Design and Programming II	3	None
Select one of the following:	3	ESC 203 Engr Mech I (3) or ESC 207 Engr Thermodynamics (3)
ENGINR 1200 Statics and Elementary Strength of Materials		
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
Technical Elective (9 credits)		
ECE or CS 3000+ or Math, Physics, Chemistry, BioE, ChemE, Civil, IMSE, MAE Engr.2000+	9	None
ECE Electives (6 credits)		
ECE Electives (4000+)	6	None
Free Electives (1 credit)		
Total Hours for BS in Computer Engineering	126	

General Education Courses
General Education Courses
St. Louis Community College

<u>St. Louis Community College Course</u>	<u>MU Equivalent</u>	<u>St. Louis Community College Course</u>	<u>MU Equivalent</u>
Behavioral Sciences		Humanities (continued)	
ANT 102 Intro to Cultural Anthropology (3)	ANTHRO 2030	ENG 228 Studies in Lit (3)	ENGLISH LIT
ANT 103 Cultural Variations (3)	ANTHRO BEH	ENG 230 Environ Lit (3)	ENGLISH LIT
ANT 105 Found Archaeology (3)	ANTHRO 2021	ENG 231 World Lit (3)	ENGLISH LIT
ANT 201 North Amer Archeaology (3)	ANTHRO 4620	GLE 101 Global Educ Studies (1-3)	MISC HUM
ANT 202 Ethnog:Nrth Amer Indians (3)	ANTHRO 3600	HUM 101 Humanities I (4)	MISC HUM
ANT 206 Incan, Aztec & Mayan (3)	ANTHRO 3650	HUM 102 Humanities II (4)	MISC HUM
ANT 207 Ancient Civ of Old World (3)	ANTHRO 4720	HUM 106 Black Humanties (3)	MISC HUM
BIO 122 Human Sexuality (3)	PSYCH 2810	HUM 109 Art & Idea: Anct Wrld (3)	MISC HUM
COM 103 Sm Group Comm (3)	COMMUN 3571	HUM 110 Mid Age & Renaiss (3)	MISC HUM
COM 110 Organiztn Comm (3)	COMMUN 4476	HUM 112 Creative Thinking (3)	MISC HUM
COM 120 Gender Communication (3)	COMMUN 4412	HUM 113 Intro Irish Stds (3)	MISC HUM
COM 200 Comm-Cultures (3)	COMMUN 3470	HUM 114 Exploring the Arts (3)	MISC HUM
COM 201 Intrpersnl Comm (3)	COMMUN 3561	HUM 115 Life&Death:Nazi Era (3)	MISC HUM
ECE 125 Child Growth &Devel I (3)	H_D_FS 2400A	HUM 208 Lib Arts:Themes (3)	MISC HUM
PSY 100 Psych of Grief (2)	PSYCH BEH	HUM 209 Blacks & World of Cinema (3)	MISC HUM
PSY 125 Human Sexuality (3)	PSYCH 2810	MCM 130 Film Apprectn (3)	FILM_S HUM
PSY 200 Gen Psychology (3)	PSYCH 1000	MCM 131 History of Film (3)	FILM_S HUM
PSY 203 Child Psychology (3)	PSYCH 2410	MCM 132 Major Them in Film (3)	FILM_S HUM
PSY 205 Hum Growth & Dev (3)	PSYCH BEH	MCM 209 Blacks & World of Cinema (3)	FILM_S HUM
PSY 206 Intro Soc Psych (3)	PSYCH 2310	MCM 215 Major Film Directors (3)	FILM_S HUM
PSY 207 Applied Psych (3)	PSYCH 1020	MUS 101 Music Theory I (4)	MUSIC_N1211
PSY 208 Abnormal Psych (3)	PSYCH 2510	MUS 102 Music Theory II (4)	MUSIC_N1212
PSY 210 Personality & Adjust (3)	PSYCH BEH	MUS 113 Hist of Jazz (3)	MUSIC_N1312
PSY 214 Adolescent Psych (3)	PSYCH BEH	MUS 114 Enjoyment-Music (3)	MUSIC_N1310
PSY 215 Brain & Behavior (3)	PSYCH 2210	MUS 128 Surv of Rock Music (3)	MUSIC_NHUM
PSY 216 Psych of Gender (3)	PSYCH BEH	MUS 211 Music History I (3)	MUSIC_NHUM
PSY 218 Add/Compul Beh (3)	PSYCH BEH	MUS 212 Music History II (3)	MUSIC_NHUM
SOC 100 Human Relations (3)	SOCIOI BEH	PHL 101 Intro Philosophy (3)	PHIL 1000
SOC 101 Intro to Soc (3)	SOCIOI 1000	PHL 102 Intro to Logic (3)	PHIL 1200
SOC 102 Intro Soc-Honors (3)	SOCIOI 1000	PHL 103 World Religions (3)	REL_ST 2110
SOC 103 Hum Beh Wrk/Bus (3)	SOCIOI BEH	PHL 104 Ethics (3)	PHIL 1100
SOC 126 Psychodym Subst (3)	SOCIOI BEH	PHL 105 Black Philosophy (3)	PHIL HUM
SOC 201 Aspects Aging (3)	SOCIOI 2230	PHL 106 Black Religion (3)	BL_STU 2570
SOC 202 Amer Soc Prob Issues (3)	SOCIOI BEH	PHL 109 Bio-Med Ethics (3)	PHIL 1150
SOC 203 Crim & Deviance (3)	SOCIOI 1650	PHL 111 Environ Ethics (3)	PHIL HUM
SOC 204 Marriage & Family (3)	SOCIOI 3420	PHL 112 Business Ethics (3)	PHIL 2420
SOC 212 Race & Ethnicity (3)	SOCIOI BEH	THT 101 Intro Theatre (3)	THEATR 1100
		THT 108 Acting I (3)	THEATR 1400
		THT 110 History-Theatre (3)	THEATR 1100
Humanities		Social Sciences (◆=State Requirement)	
ANT 203 Biblical Archaeology (3)	REL_ST HUM	ECO 140 Intro to Econ (3)	ECONOM SSC
ANT 205 Clt Cntxt Erly Christian (3)	REL_ST HUM	ECO 151 Prin of Macroeconomics (3)	ECONOM 1015
ARC 114 Archt Hist & Theory (3)	ARCHST 1600	ECO 152 Prin of Microeconomics (3)	ECONOM 1014
ART 100 Art Appreciation (3)	ART_GNR1020	FIN 100 Personal Finance (3)	FINANC 1000
ART 101 Art History I (3)	AR_H_A 1110	FIN 201 Fund of Finance (3)	FINANC 2000
ART 102 Art History II (3)	AR_H_A 1120	GEG 100 Reg Geog-East (3)	GEOG 1200
ART 103 Hist of Modern Art (3)	AR_H_A HUM	GEG 101 Reg Geog-West (3)	GEOG 1100
ART 104 Major Black Artists (3)	AR_H_A HUM	GEG 103 Physical Geog (3)	GEOG 2610
ART 105 Intro to Art (3)	ART_GNR1010	GEG 106 US & World Geog (3)	GEOG SSC
ART 153 Hist of Cultural Env (3)	AR_H_A HUM	◆HST 100 Amer Civilization (3)	HIST SSC_ST
ART 168 Hist of Photography (3)	ART_PHOHUM	◆HST 101 Amer Hist I (3)	HIST 1100
ART 254 Hlst of Cult Environ II (3)	AR_H_A HUM	◆HST 102 Amer Hist II (3)	HIST 1200
COM 107 Public Speaking (3)	COMMUN 1200	◆HST 103 Am Hist I-Hon (3)	HIST 1100
ENG 201 Intro Fiction (3)	ENGLISH LIT	◆HST 104 Am Hist II-Hon (3)	HIST 1200
ENG 202 Intro Poetry/Play (3)	ENGLISH LIT	◆HST 105 US in 20th Cent (3)	HIST 2210
ENG 203 American Lit (3)	ENGLISH LIT	HST 107 Hist of Black Amer (3)	HIST 1410
ENG 204 Amer Lit Before 1865 (3)	ENGLISH LIT	HST 115 Anc/Med Heritage (3)	HIST 1500
ENG 205 Amer Lit Between 1865 and 1945 (3)	ENGLISH LIT	HST 117 Early Mod Europe (3)	HIST 1510
ENG 206 Amer Lit after 1945 (3)	ENGLISH LIT	HST 119 Modern World (3)	HIST SSC
ENG 207 Humor in Amer Lit (3)	ENGLISH LIT	HST 128 Western Tradition II (3)	HIST SSC
ENG 210 British Lit to 1800 (3)	ENGLISH LIT	HST 130 African History I (3)	HIST SSC
ENG 213 Short Novel (3)	ENGLISH LIT	HST 131 African Hist II (3)	HIST SSC
ENG 214 Contemp Fiction (3)	ENGLISH LIT	HST 137 African Amer Hist I (3)	HIST SSC
ENG 215 Pop Lit: Fan/Hor (3)	ENGLISH LIT	HST 138 African Amer Hist II (3)	HIST SSC
ENG 216 Women in Lit (3)	ENGLISH 2180	HST 139 British History (3)	HIST 1540
ENG 217 Major Black Writers (3)	ENGLISH LIT		
ENG 218 Lit: Amer Minorities (3)	ENGLISH LIT		
ENG 226 Children's Lit (3)	ENGLISH LIT		

St. Louis Community College Course**MU Equivalent****Social Sciences (continued) (◆=State Law Course)**

HST 201 History of the Far East (3)	HIST SSC
HST 204 US in Crisis & Civ Wr (3)	HIST SSC
HST 205 Hist Mod Mid East (3)	HIST SSC
HST 206 Women in 20th Cent (3)	HIST SSC
HST 207 Amer in Vietnam (3)	HIST SSC
◆PSC 101 Intro Amer Politics (3)	POL_SC 1100
◆PSC 103 State & Urban Pol (3)	POL_SC 2100
PSC 104 British Pol & Soc (3)	POL_SC SSC
PSC 106 Blacks & Amer Pol Pr (3)	POL_SC SSC
PSC 201 Internat Relations (3)	POL_SC 1400
PSC 204 Pol African Nations (3)	POL_SC SSC
◆PSC 205 Constit Issues (3)	POL_SC SSC_ST
PSC 211 US Foreign Policy (3)	POL_SC 4540
PSC 212 Russian Pol & Soc (3)	POL_SC SSC
WMS 100 Intro Women's Studies (3)	WGST 1120

St. Louis Community College Course**MU Equivalent****Foreign Language**

FRE 101 Elem French I (4)	FRENCH 1100
FRE 102 Elem French II (4)	FRENCH 1200
FRE 201 Interm French I (4)	FRENCH 2100
GER 101 Elem German I (4)	GERMAN 1100
GER 102 Elem German II (4)	GERMAN 1200
GER 201 Intermed German I (4)	GERMAN 2100
ITL 103 Elem Italian I (4)	ITAL 1100A
ITL 104 Elem Italian II (4)	ITAL 1100B
JPN 101 Mod Japanese I (4)	JAPNSE 1100A
JPN 102 Mod Japanese II (4)	JAPNSE 1100B
RUS 101 Elem Russian I (4)	RUSS 1100A
RUS 102 Elem Russian II (4)	RUSS 1100B
SPA 101 Elem Spanish I (4)	SPAN 1100
SPA 102 Elem Spanish II (4)	SPAN 1200
SPA 201 Interm Span I (4)	SPAN 2100