

University of Missouri

Bachelor of Science in Computer Science

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 Mechanical Engineering major:

- 1) College Catalog (<http://registrar.missouri.edu>)
- 2) Transfer Equivalencies (<http://transfercourses.missouri.edu> or <http://transfer.org>)
- 3) General Education (<http://generaleducation.missouri.edu>)
- 4) Computer Science (<http://engineering.missouri.edu/cs/degree-programs/>)

Recommendation for Transfer Students - Transfer students interested in the BS in Computer Science are encouraged to take programming courses if available at the community college. Students who transfer to MU without any of the programming courses (CS 1050 and CS 2050) will be at least 3 to 3 ½ years away from graduation at MU.

For more information about the Bachelor of Science in Computer Science, contact the Department of computer Science at 573-884-6342 or WheelerAl@missouri.edu.

University of Missouri		St. Louis Community College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
English Exposition and Argumentation (3 credits)		
ENGLSH 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 Science Elective	3	Select social science from the general education list.
Behavioral Science Elective	3	Select behavioral science from the general education list.
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		
COMMUN 1200 Public Speaking	3	COM 107 Public Speaking (3)
Humanity 2	3	Select humanities from the general education list.
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. You may also take a foreign language in the 12-hour format. If you elect this option, you still must take Comm 1200 Public Speaking to graduate.
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 other general education requirements (behavioral sciences, social sciences, or humanities).		
Upper Level Course	3	Select 200/2000-level behavioral science, social science, or humanity course from the general education list. Level is based upon the community college course number, NOT the MU equivalent.
Writing Intensive (6 credits)		
Other writing intensive outside the major	3	Must be taken at MU
CMP SC 4970 Senior Capstone Design I	3	Must be taken at MU
Required Computer Science Courses (42 credits)		
CMP SC 1000 Intro to Computer Science	1	None (not required if student transfers 60 credit hours or more to MU)
CMP SC 1050 Algorithm Design and Programming I	3	None
CMP SC 2050 Algorithm Design and Programming II	3	None
CMP SC 3050 Advanced Algorithm Design	3	None
CMP SC 3270 Intro to Digital Logic	3	None
CMP SC 3280 Computer Organization & Assembly Language	3	None
CMP SC 3330 Object Oriented Programming	3	None
CMP SC 3380 Database Applications & Information Systems	3	None
CMP SC 4050 Design and Analysis of Algorithms I	3	None
CMP SC 4320 Software Engineering I	3	None
CMP SC 4520 Operating Systems I	3	None
CMP SC 4850 Computer Networks I	3	None
CMP SC 4970 Senior Capstone Design I (WI)	3	None
CMP SC 4980 Senior Capstone Design II	2	None

University of Missouri		St. Louis Community College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
Computer Science Electives (21 credits)		
Select two 4000-level courses from: CMP SC 4410 Theory of Computation I CMP SC 4430 Compilers I CMP SC 4450 Principles of Programming Languages	6	None
Additional 4000-level CMP SCI courses	9	None
Other CMP SC course (2000-level or higher)	3	None
Mathematics (19 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 2320 Discrete Mathematical Structures	3	MTH 212 Discrete Math (MRP) (3)
STAT 4710 Intro to Mathematical Statistics	3	None
Technical Elective (3 credits)		
2000-level or above CMP SC course, 4000-level MATH course, 2000-level or above engineering course, MANGMT 3000, FINANC 3000, or 2000-level INFOTC course	3	Check the computer science and transfer equivalency web sites for course options.
Sciences (12 credits) Select one science sequence (Physics, Chemistry, Biology, or Geology)		
Select one two-semester science sequence:		
PHYSICS 2750 University Physics I and PHYSICS 2760 University Physics II	10	PHY 122 Engr Physics I (5) and PHY 223 Engr Physics II (5)
PHYSICS 1210 College Physics I and PHYSICS 1220 College Physics II	8	PHY 111 Coll Physics I (4) and PHY 112 Coll Physics II (4)
CHEM 1320 College Chemistry I and CHEM 1330 College Chemistry II	8	CHM 105 Gen Chemistry I (5) and CHM 106 Gen Chemistry II (5)
BIO SC 1010 General Princ & Concepts of Biology and BIO SC 1020 General Biology Laboratory AND BIO SC 1200 General Botany with Lab or BIOCHM 2110 The Living World: Molecular Scale or BIOCHM 2112 Biotechnology in Society or ANTHRO 2050 Intro to Biological Anthropology or ANTHRO 2051 & 2052 Intro to Biological Anthro or BIO SC 2100 Infectious Diseases or or BIO SC 2600 Ornithology or BIO SC 3050 Genetics and Society or BIOCHM 3630 General Biochemistry or BIO SC 3210 Plant Systematics	8-10	BIO 111 Intro Biology I (4) AND BIO 124 Gen Botany I (4)
GEOL 1100 Principles of Geology with Laboratory or GEOL 1200 Environmental Geology with Lab AND GEOL 2150 The Age of the Dinosaurs or GEOL 2200 Oceanography or GEOL 2300 Earth Systems and Global Change or GEOL 2350 Historical Geology or GEOL 2400 Surficial Earth Processes and Products or GEOL 3100 & 3115 Geology of Missouri	7-8	GEO 111 Physical Geology (5) or GEO 100 & 101 Earth Science and Lab (5) AND GEO 113 Oceanography (3)
Select other courses to complete 12 credits in science:		
ASTRON 1010 Intro to Astronomy	4	PSI 111 Intro Astron I (3)
ASTRON 1020 Intro to Lab Astronomy	2	PSI 115 Observ Astron (1)
CHEM 1100 Atoms and Molecules with Lab	3	CHM 101 Fund of Chem I (5)
CHEM 1330 General Chemistry III with Lab	3	CHM 106 Gen Chemistry II (5)
Science sequence courses outside the selected sequence	3-5	Choose science sequence courses outside the selected sequence
BIO SC, BIOCHM, CHEM, GEOL, or PHYSICS courses beyond the levels listed above	3-5	Select sciences (biology, biochemistry, chemistry, geology) courses <i>beyond the levels listed above</i> from the general education list.
Non-Science Electives (9 credits)		
Courses in business, education, or additional humanities, social, or behavioral sciences beyond what is required in those categories. <u>Not</u> courses in CS, IT Engineering, Math, or Science.	9	Check the transfer equivalency web site for options.
Free Electives (4 credits) if needed to reach 126 hours NOTE: Additional free electives may be required if a course transfers with fewer credits than the MU equivalent.		
Total Hours for Bachelor of Science in Computer Science	126	

General Education Courses

St. Louis Community College

St. Louis Community College Course	MU Equivalent	St. Louis Community College Course	MU Equivalent
Behavioral Sciences		Humanities (continued)	
ANT 102 Intro to Cultural Anthropology (3)	ANTHRO 2030	HUM 109 Art & Idea: Anct Wrld (3)	MISC HUM
ANT 103 Cultural Variations (3)	ANTHRO BEH	HUM 110 Mid Age & Renaiss (3)	MISC HUM
ANT 105 Found Archaeology (3)	ANTHRO 2021	HUM 112 Creative Thinking (3)	MISC HUM
ANT 201 North Amer Archeaology (3)	ANTHRO 4620	HUM 113 Intro Irish Stds (3)	MISC HUM
ANT 202 Ethnog:Nrth Amer Indians (3)	ANTHRO 3600	HUM 114 Exploring the Arts (3)	MISC HUM
ANT 206 Incan, Aztec & Mayan (3)	ANTHRO 3650	HUM 115 Life&Death:Nazi Era (3)	MISC HUM
ANT 207 Ancient Civ of Old World (3)	ANTHRO 4720	HUM 208 Lib Arts:Themes (3)	MISC HUM
BIO 122 Human Sexuality (3)	PSYCH 2810	HUM 209 Blacks & World of Cinema (3)	MISC HUM
COM 103 Sm Group Comm (3)	COMMUN 3571	MCM 130 Film Apprectn (3)	FILM_S HUM
COM 110 Organiztn Comm (3)	COMMUN 4476	MCM 131 History of Film (3)	FILM_S HUM
COM 120 Gender Communication (3)	COMMUN 4412	MCM 132 Major Them in Film (3)	FILM_S HUM
COM 200 Comm-Cultures (3)	COMMUN 3470	MCM 209 Blacks & World of Cinema (3)	FILM_S HUM
COM 201 Intrpersnl Comm (3)	COMMUN 3561	MCM 215 Major Film Directors (3)	FILM_S HUM
ECE 125 Child Growth & Devel I (3)	H_D_FS 2400A	MUS 101 Music Theory I (4)	MUSIC_N1211
PSY 100 Psych of Grief (2)	PSYCH BEH	MUS 102 Music Theory II (4)	MUSIC_N1212
PSY 125 Human Sexuality (3)	PSYCH 2810	MUS 113 Hist of Jazz (3)	MUSIC_N1312
PSY 200 Gen Psychology (3)	PSYCH 1000	MUS 114 Enjoyment-Music (3)	MUSIC_N1310
PSY 203 Child Psychology (3)	PSYCH 2410	MUS 128 Surv of Rock Music (3)	MUSIC_NHUM
PSY 205 Hum Growth & Dev (3)	PSYCH BEH	MUS 211 Music History I (3)	MUSIC_NHUM
PSY 206 Intro Soc Psych (3)	PSYCH 2310	MUS 212 Music History II (3)	MUSIC_NHUM
PSY 207 Applied Psych (3)	PSYCH 1020	PHL 101 Intro Philosophy (3)	PHIL 1000
PSY 208 Abnormal Psych (3)	PSYCH 2510	PHL 102 Intro to Logic (3)	PHIL 1200
PSY 210 Personality & Adjust (3)	PSYCH BEH	PHL 103 World Religions (3)	REL_ST 2110
PSY 214 Adolescent Psych (3)	PSYCH BEH	PHL 104 Ethics (3)	PHIL 1100
PSY 215 Brain & Behavior (3)	PSYCH 2210	PHL 105 Black Philosophy (3)	PHIL HUM
PSY 216 Psych of Gender (3)	PSYCH BEH	PHL 106 Black Religion (3)	BL_STU 2570
PSY 218 Add/Compul Beh (3)	PSYCH BEH	PHL 109 Bio-Med Ethics (3)	PHIL 1150
SOC 100 Human Relations (3)	SOCIO BEH	PHL 111 Environ Ethics (3)	PHIL HUM
SOC 101 Intro to Soc (3)	SOCIO 1000	PHL 112 Business Ethics (3)	PHIL 2420
SOC 102 Intro Soc-Honors (3)	SOCIO 1000	THT 101 Intro Theatre (3)	THEATR 1100
SOC 103 Hum Beh Wrk/Bus (3)	SOCIO BEH	THT 108 Acting I (3)	THEATR 1400
SOC 126 Psychodym Subst (3)	SOCIO BEH	THT 110 History-Theatre (3)	THEATR 1100
SOC 201 Aspects Aging (3)	SOCIO 2230		
SOC 202 Amer Soc Prob Issues (3)	SOCIO BEH	Social Sciences (◆=State Requirement)	
SOC 203 Crim & Deviance (3)	SOCIO 1650	ECO 140 Intro to Econ (3)	ECONOM SSC
SOC 204 Marriage & Family (3)	SOCIO 3420	ECO 151 Prin of Macroeconomics (3)	ECONOM 1015
SOC 212 Race & Ethnicity (3)	SOCIO BEH	ECO 152 Prin of Microeconomics (3)	ECONOM 1014
		FIN 100 Personal Finance (3)	FINANC 1000
		FIN 201 Fund of Finance (3)	FINANC 2000
Humanities		GEG 100 Reg Geog-East (3)	GEOG 1200
ANT 203 Biblical Archaeology (3)	REL_ST HUM	GEG 101 Reg Geog-West (3)	GEOG 1100
ANT 205 Cit Cntxt Erly Christian (3)	REL_ST HUM	GEG 103 Physical Geog (3)	GEOG 2610
ARC 114 Archt Hist & Theory (3)	ARCHST 1600	GEG 106 US & World Geog (3)	GEOG SSC
ART 100 Art Appreciation (3)	ART_GNR1020	◆HST 100 Amer Civilization (3)	HIST SSC_ST
ART 101 Art History I (3)	AR_H_A 1110	◆HST 101 Amer Hist I (3)	HIST 1100
ART 102 Art History II (3)	AR_H_A 1120	◆HST 102 Amer Hist II (3)	HIST 1200
ART 103 Hist of Modern Art (3)	AR_H_A HUM	◆HST 103 Am Hist I-Hon (3)	HIST 1100
ART 104 Major Black Artists (3)	AR_H_A HUM	◆HST 104 Am Hist II-Hon (3)	HIST 1200
ART 105 Intro to Art (3)	ART_GNR1010	◆HST 105 US in 20th Cent (3)	HIST 2210
ART 153 Hist of Cultural Env (3)	AR_H_A HUM	HST 107 Hist of Black Amer (3)	HIST 1410
ART 168 Hist of Photography (3)	ART_PHOHUM	HST 115 Anc/Med Heritage (3)	HIST 1500
ART 254 Hist of Cult Environ II (3)	AR_H_A HUM	HST 117 Early Mod Europe (3)	HIST 1510
COM 107 Public Speaking (3)	COMMUN 1200	HST 119 Modern World (3)	HIST SSC
ENG 201 Intro Fiction (3)	ENGLISH LIT	HST 128 Western Tradition II (3)	HIST SSC
ENG 202 Intro Poetry/Play (3)	ENGLISH LIT	HST 130 African History I (3)	HIST SSC
ENG 203 American Lit (3)	ENGLISH LIT	HST 131 African Hist II (3)	HIST SSC
ENG 204 Amer Lit Before 1865 (3)	ENGLISH LIT	HST 137 African Amer Hist I (3)	HIST SSC
ENG 205 Amer Lit Between 1865 and 1945 (3)	ENGLISH LIT	HST 138 African Amer Hist II (3)	HIST SSC
ENG 206 Amer Lit after 1945 (3)	ENGLISH LIT	HST 139 British History (3)	HIST 1540
ENG 207 Humor in Amer Lit (3)	ENGLISH LIT	HST 201 History of the Far East (3)	HIST SSC
ENG 210 British Lit to 1800 (3)	ENGLISH LIT	HST 204 US in Crisis & Civ Wr (3)	HIST SSC
ENG 213 Short Novel (3)	ENGLISH LIT	HST 205 Hist Mod Mid East (3)	HIST SSC
ENG 214 Contemp Fiction (3)	ENGLISH LIT	HST 206 Women in 20th Cent (3)	HIST SSC
ENG 215 Pop Lit: Fan/Hor (3)	ENGLISH LIT	HST 207 Amer in Vietnam (3)	HIST SSC
ENG 216 Women in Lit (3)	ENGLISH 2180	◆PSC 101 Intro Amer Politics (3)	POL_SC 1100
ENG 217 Major Black Writers (3)	ENGLISH LIT	◆PSC 103 State & Urban Pol (3)	POL_SC 2100
ENG 218 Lit: Amer Minorities (3)	ENGLISH LIT	PSC 104 British Pol & Soc (3)	POL_SC SSC
ENG 226 Children's Lit (3)	ENGLISH LIT	PSC 106 Blacks & Amer Pol Pr (3)	POL_SC SSC
ENG 228 Studies in Lit (3)	ENGLISH LIT	PSC 201 Internat Relations (3)	POL_SC 1400
ENG 230 Environ Lit (3)	ENGLISH LIT	PSC 204 Pol African Nations (3)	POL_SC SSC
ENG 231 World Lit (3)	ENGLISH LIT	◆PSC 205 Constit Issues (3)	POL_SC SSC_ST
GLE 101 Global Educ Studies (1-3)	MISC HUM	PSC 211 US Foreign Policy (3)	POL_SC 4540
HUM 101 Humanities I (4)	MISC HUM	PSC 212 Russian Pol & Soc (3)	POL_SC SSC
HUM 102 Humanities II (4)	MISC HUM	WMS 100 Intro Women's Studies (3)	WGST 1120
HUM 106 Black Humanties (3)	MISC HUM		

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

FRE 101 Elem French I (4)
 FRE 102 Elem French II (4)
 FRE 201 Interm French I (4)
 GER 101 Elem German I (4)
 GER 102 Elem German II (4)
 GER 201 Interm German I (4)
 ITL 103 Elem Italian I (4)
 ITL 104 Elem Italian II (4)
 JPN 101 Mod Japanese I (4)
 JPN 102 Mod Japanese II (4)
 RUS 101 Elem Russian I (4)
 RUS 102 Elem Russian II (4)
 SPA 101 Elem Spanish I (4)
 SPA 102 Elem Spanish II (4)
 SPA 201 Interm Span I (4)

SCIENCES**Biological Sciences (▲=Lab Course)**

ANT 101 Intro Phy Anthro & Arch (3)
 ▲BIO 102 Clinical Physiology (3)
 ▲BIO 104 Basic Lab Methods (3)
 BIO 105 Topics in Evolution (3)
 ▲BIO 106 Human Heredity (4)
 BIO 109 Human Biology (3)
 ▲BIO 110 Gen Zoology (4)
 ▲BIO 111 Intro Biology I (4)
 BIO 113 Mod Asp Bio-Lec (3)
 BIO 117 Conser/Ecol-Lec (3)
 ▲BIO 119 Field Botany (3)
 ▲BIO 120 Field Zoology (3)
 BIO 123 Animal Behavior (3)
 ▲BIO 124 Gen Botany I (4)
 ▲BIO 140 Prin of Biology I (4)
 ▲BIO 141 Prin of Biology II (4)
 BIO 144 Marine Biology (3)
 ▲BIO 145 Field Exper-Marine Biol (1-2)
 BIO 146 Desert Ecology (3)
 BIO 148 Ozark Ecology (3)
 ▲BIO 149 Field Exper-Ozark Ecol (1-2)
 BIO 151 Bio of Human Health & Disease (3)
 BIO 153 Intro to Tropical Biology (3)
 ▲BIO 203 Gen Microbiology I (4)
 ▲BIO 207 Anat & Physiology I (4)
 ▲BIO 208 Anat & Physiology II (4)
 ▲BIO 215 Human Body Systems (5)
 ▲BIO 219 Biotechnology I (5)
 ▲BIO 220 Biotechnology II (5)
 BIO 225 Genetics (5)
 DIT 115 Princ of Nutrition (1)
 HRM 128 Nutrition (3)
 HRT 102 Soils (3)

MU Equivalent

FRENCH 1100
 FRENCH 1200
 FRENCH 2100
 GERMAN 1100
 GERMAN 1200
 GERMAN 2100
 ITAL 1100A
 ITAL 1100B
 JAPNSE 1100A
 JAPNSE 1100B
 RUSS 1100A
 RUSS 1100B
 SPAN 1100
 SPAN 1200
 SPAN 2100

ANTHRO 2051
 BIO_SC BIOL
 BIO_SC BIOL
 BIO_SC BIO
 BIO_SC BIOL
 BIO_SC BIO
 BIO_SC 1100
 BIO_SC 1030
 BIO_SC BIO
 BIO_SC BIO
 BIO SC BIOL
 BIO_SC BIOL
 BIO_SC BIO
 BIO_SC 1200
 BIO_SC 1500A
 BIO_SC 1500B
 BIO_SC BIO
 BIO_SC BIOL
 BIO_SC BIO
 BIO_SC BIO
 BIO_SC BIOL
 BIO_SC BIOL
 BIO_SC BIOL
 BIO_SC BIOL
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 BIO_SC BIOL
 BIO_SC BIOL
 BIO_SC 2200
 NUTR_S 1340
 F_S 1030
 PLNT_S 2100

St. Louis Community College Course**Physical Sciences (▲=Lab Course, ⚡= Math Reasoning Proficiency)**

▲ART 152 Textiles (3)
 ▲CHM 101 Fund of Chem I (5)
 ▲CHM 102 Fund of Chem II (4)
 ▲CHM 105 Gen Chemistry I (5)
 ▲CHM 106 Gen Chemistry II (5)
 ▲CHM 109 Chem-Environ I (4)
 ▲CHM 212 Bio-Org & Analy Chem (4)
 GEO 100 Earth Science (3)
 ▲GEO 101 Earth Sci Lab (2)
 GEO 103 Envirnm Geology (3)
 GEO 104 Prehistoric Life (2)
 ▲GEO 111 Physical Geology (5)
 GEO 113 Oceanography (3)
 ⚡▲PHY 111 Coll Physics I (MRP) (4)
 ⚡▲PHY 112 Coll Physics II (MRP) (4)
 ▲PHY 122 Engr Physics I (5)
 ▲PHY 223 Engr Physics II (5)
 ▲PHY 224 Engr Physic III (3)
 PSI 101 Phys Sci Lec I (3)
 ▲PSI 105 Physical Sci I (3)
 PSI 111 Intro Astron I (3)
 PSI 112 Intro Astron II (3)
 ▲PSI 115 Observ Astron (1)
 PSI 121 Light & Vision (3)
 PSI 123 Meteorology (3)
 ▲PSI 124 Prin Physical Sci (4)

MU Equivalent

T_A_M 2200
 CHEM 1100
 CHEM PSCL
 CHEM 1320
 CHEM 1330
 CHEM PSCL
 CHEM PSCL
 GEOL 1200A
 GEOL 1200B
 GEOL PSC
 GEOL PSC
 GEOL 1100
 GEOL 2200
 PHYSCS 1210
 PHYSCS 1220
 PHYSCS 2750
 PHYSCS 2760
 PHYSCS PSCL
 MISC PSC
 MISC PSCL
 ASTRON 1010
 ASTRON PSC
 ASTRON 1020
 PHYSCS PSC
 ATM_SC 1050
 MISC PSCL