University of Missouri
Bachelor of Science in Computer Science
Transfer Guide for Three Rivers 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		Three Rivers Community College
COURSE	**CREDITS**	**EQUIVALENT COURSE (CREDITS)**
English Exposition and Argumentation *(3 credits)*		
ENGLSH 1000 Exposition and Argumentation	3	ENGL 112 Adv College Writing (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	SCOM 110 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 transcripted 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		CREDITS	Three Rivers Community College
COURSE			**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	MATH 171 Analy Geom&Calc I (5)
MATH 1700 Calculus II		5	MATH 271 Analy Geom&Calc II (5)
MATH 2300 Calculus III		3	MATH 272 Analy Geom&Calc III (5)
MATH 2320 Discrete Mathematical Structures		3	None
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:			
PHYSCS 2750 University Physics I and PHYSCS 2760 University Physics II		10	PHYS 211 General Physics I (5) and PHYS 212 General Physics II (5)
PHYSCS 1210 College Physics I and PHYSCS 1220 College Physics II		8	None
CHEM 1320 College Chemistry I and CHEM 1330 College Chemistry II		8	CHEM 121 Gen Chemistry I (5) and CHEM 122 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	BIOL 101 General Biology (5)
			            AND
			BIOL 211 General Botany (5)

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	None

Select other courses to complete 12 credits in science:			
ASTRON 1010 Intro to Astronomy		4	None
ASTRON 1020 Intro to Lab Astronomy		2	None
CHEM 1100 Atoms and Molecules with Lab		3	CHEM 111 Intro Chemistry (5)
CHEM 1330 General Chemistry III with Lab		3	CHEM 122 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 PHYSCS courses beyond the levels listed above		3-5	Select sciences (biology, biochemistry, chemistry, geology) courses *beyond the levels listed above* 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**	

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General Education Courses
Three Rivers Community College

Three Rivers Community College Course	MU Equivalent
Behavioral Sciences	
ANTH 211 Intro to Anthropology (3)	ANTHRO 1000
PSYC 111 Gen Psychology (3)	PSYCH 1000
PSYC 112 Psych of Pers Adjust (3)	PSYCH BEH
PSYC 223 Child Psychology (3)	PSYCH 2410
PSYC 233 Adolescent Psych (3)	PSYCH BEH
PSYC 243 Human Dev Across Life (3)	PSYCH BEH
SCOM 210 Interpers Comm (3)	COMMUN 3561
SOCI 111 Gen Sociology (3)	SOCIOL 1000
SOCI 221 Race & Ethnicity (3)	SOCIOL BEH
SOCI 223 Marriage & the Family (3)	SOCIOL 3420
SOCI 230 Criminology (3)	SOCIOL 3600
Humanities	
ARTS 110 Intro to Art (3)	ART_GNR1010
ARTS 123 Hist&Apprec of Art (3)	ART_GNR1020
ENGL 221 World Lit to 1600 (3)	ENGLSH 2155
ENGL 222 World Lit since 1600 (3)	ENGLSH 2155
ENGL 223 Classical Mythology (3)	CL_HUM 1060
ENGL 231 English Lit to 1798 (3)	ENGLSH 2200
ENGL 232 English Lit since 1798 (3)	ENGLSH 2200
ENGL 233 Shakespeare (3)	ENGLSH 2160
ENGL 241 Amer Lit to 1870 (3)	ENGLSH 2300
ENGL 242 Amer Lit since 1870 (3)	ENGLSH 2300
ENGL 281 Old Testament Lit (3)	REL_ST 2500
ENGL 282 New Testament Lit (3)	REL_ST 2510
FILM 122 Hist & Apprec of Film (3)	FILM_S HUM
HNRS 220 Hnrs Multi-Disc Sem (3)	MISC HUM
MCOM 101 Mass Comm & Society (3)	COMMUN 2100
MUSC 123 Hist & Apprec of Music (3)	MUSIC NM 1310
MUSC 221 Music Literature I (3)	MUSIC_NHUM
MUSC 222 Music Literature II (3)	MUSIC_NHUM
PHIL 200 Intro to Philosophy (3)	PHIL 1000
PHIL 223 Literature of Bible (3)	REL_ST HUM
PHIL 233 Ethics (3)	PHIL 1100
PHIL 243 Religions of the World (3)	REL_ST 2110
SCOM 110 Public Speaking (3)	COMMUN 1200
SCOM 243 Argument & Debate (3)	COMMUN 3572
THEA 120 Hist & Apprec of Theater (3)	THEATR HUM
VALU 161 Values, Econ & Decision (3)	MISC HUM
VALU 180 Ideas in Living (3)	MISC HUM
VALU 181 Images of Women (3)	WMN_ST HUM
VALU 182 Music of the World (3)	MUSIC_NHUM
VALU 190 World Foods & Society (3)	MISC HUM
Social Sciences (◆=State Requirement)	
ECON 211 Prin of Macroecon (3)	ECONOM 1015
ECON 212 Prin of Microecon (3)	ECONOM 1014
GEOG 111 Reg World Geog I (3)	GEOG 1200
GEOG 112 Reg World Geog II (3)	GEOG 1100
GNST 111 Personal Finance (3)	FINPLN 2183
◆GOVT 111 Intro Political Sci (3)	POL_SC 1700
◆GOVT 121 National & State Gov't (3)	POL_SC 1100
GOVT 122 Intro Public Policy (3)	POL_SC 4320
GOVT 220 Missouri Gov't (1)	POL_SC SSC
◆GOVT 223 State & Local Gov't (3)	POL_SC 2100
GOVT 233 International Relations (3)	POL_SC 1400
◆HIST 111 Amer Hist to 1877 (3)	HIST 1100
◆HIST 112 Amer Hist since 1877 (3)	HIST 1200
HIST 121 World Civ to Renaiss (3)	HIST SSC
HIST 122 World Civ since Renaiss (3)	HIST SSC
HIST 201 Evil:Historical Persp (3)	HIST SSC
HIST 211 The US since 1945 (3)	HIST SSC
SOCI 234 Social Problems (3)	SOCIOL 3010

Three Rivers Community College Course	MU Equivalent
Foreign Language	
SPAN 101 Elem Spanish I (3)	SPAN 1100A
SPAN 102 Elem Spanish II (3)	SPAN 1100B
SPAN 201 Interm Spanish I (3)	SPAN 1200
SPAN 202 Interm Spanish II (3)	SPAN 2100
SCIENCES	
Biological Sciences (▲=Lab Course)	
AGRI 120 Plant Science (4)	PLNT_S 2110
AGRI 130 Animal Science (3)	AN_SCI 1011
AGRI 260 Gen Horticulture (3)	PLNT_S 2075
BIOL 100 Survey of Biology (3)	BIO_SC 1010
▲BIOL 101 General Biology (5)	BIO_SC 1030
▲BIOL 102 Environmental Sci (5)	BIO_SC 1060
▲BIOL 190 Biology for Majors (5)	BIO_SC 1500
▲BIOL 211 General Botany (5)	BIO_SC 1200
▲BIOL 221 General Zoology (5)	BIO_SC 1100
▲BIOL 231 Anat & Physio I (4)	BIO_SC BIOL
▲BIOL 232 Anat & Physio II (4)	BIO_SC BIOL
▲BIOL 253 Microbiology (4)	BIO_SC BIOL
▲BIOL 254 Spc Tpcs in Microbio (1)	BIO_SC BIOL
Physical Sciences (▲=Lab Course)	
▲CHEM 111 Intro Chemistry (5)	CHEM 1100
▲CHEM 121 Gen Chemistry I (5)	CHEM 1320
▲CHEM 122 Gen Chemistry II (5)	CHEM 1330
▲CHEM 240 Basic Organic Chemistry (5)	CHEM 2030 & 2130
PHYS 100 Survey of Physics (3)	PHYSCS PSC
▲PHYS 101 Physical Science (5)	MISC PSCL
PHYS 150 Environ Geology (4)	GEOL PSC
▲PHYS 211 General Physics I (5)	PHYSCS 2750
▲PHYS 212 General Physics II (5)	PHYSCS 2760