

University of Missouri

Bachelor of Science in Computer Science

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 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 WheelerAI@missouri.edu.

University of Missouri		Jefferson College
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
English Exposition and Argumentation (3 credits)		
ENGLSH 1000 Exposition and Argumentation	3	ENG 102 English 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	SPD 175 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. <input checked="" type="checkbox"/> 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

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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 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 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	PHY 223 Gen Physics I (4) and PHY 224 Gen Physics II (4)
PHYSCS 1210 College Physics I and PHYSCS 1220 College Physics II	8	PHY 111 Elem Coll Physics I (5) and PHY 112 Elem Coll Physics II (4)
CHEM 1320 College Chemistry I and CHEM 1330 College Chemistry II	8	CHM 111 Gen Chemistry I (5) and CHM 112 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 101 Gen Biology (5) AND BIO 205 Gen 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	PHY 105 Phys Geology (4) AND Other Geology Course at MU
Select other courses to complete 12 credits in science:		
ASTRON 1010 Intro to Astronomy	4	PHY 106 Intro to Astronomy (4)
ASTRON 1020 Intro to Lab Astronomy	2	None
CHEM 1100 Atoms and Molecules with Lab	3	CHM 101 Intro Chem (5) or CHM 102 Concepts in Chem (3)
CHEM 1330 General Chemistry III with Lab	3	CHM 112 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 <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

Jefferson College

<u>Jefferson College Course</u>	<u>MU Equivalent</u>	<u>Jefferson College Course</u>	<u>MU Equivalent</u>
Behavioral Sciences		Social Sciences (continued) (◆=State Law Course)	
PSY 101 Gen Psychology (3)	PSYCH 1000	HST 203 Modern Europe (3)	HIST 3540 HST 205
PSY 101H Hon Gen Psych (3)	PSYCH 1000	African-Amer Hist (3)	HIST 1410
PSY 120 Psych of Pers Adjust (3)	PSYCH BEH	HST 210 Asian Civil (3)	HIST SSC
PSY 201 Child Development (3)	PSYCH 2410	HST 230 Women in Amer Hist (3)	HIST 2400
PSY 202 Adolescent Psych (3)	PSYCH BEH	HST 235 Women in Hist (3)	HIST 2400
PSY 205 Human Development (3)	PSYCH BEH	◆HST 240 Missouri Hist (3)	HIST 2440
SOC 101 Gen Sociology (3)	SOCIOL 1000	◆PSC 102 US & MO Govt Const (3)	POL_SC 1100
SOC 125 Human Diversity (3)	SOCIOL BEH	PSC 103 Current Pol Iss (3)	POL_SC SSC
SOC 210 Alcohol, Drugs & Soc (3)	SOCIOL BEH	PSC 155 Internat Relations (3)	POL_SC 1400
SOC 240 Marriage & Family (3)	SOCIOL 3420	PSC 250 IS: Model UN (3)	POL_SC SSC
SOC 250 Social Disorganization (3)	SOCIOL 1650	PSC 250H IS: Model UN Hnr (3)	POL_SC SSC
Humanities		Foreign Language	
ART 101 Art Appreciation (3)	ART_GNR1020	FRN 101 Begin French (5)	FRENCH 1100
ART 103 Survey of Art I (3)	AR_H_A 1110	FRN 102 Interm French (5)	FRENCH 1200
ART 105 Survey of Art II (3)	AR_H_A 1120	FRN 201 Fren Gram & Comp (3)	FRENCH 2100
ART 107 Modern Art (3)	AR_H_A HUM	GRM 101 Begin German (4)	GERMAN 1100
ART 112 Intro to Art (3)	ART_GNR1010	GRM 102 Intermed German (4)	GERMAN 1200
ENG 105 Lit Types:Ptry/Short St (3)	ENGLSH LIT	SPN 101 Begin Spanish (5)	SPAN 1100
ENG 106 Lit Types:Drama/Novel (3)	ENGLSH LIT	SPN 102 Interm Spanish (5)	SPAN 1200
ENG 122 Film Apprec: Intro Cinema (3)	FILM_S HUM	SPN 201 Span Gram & Comp (3)	SPAN 2100
ENG 143 Lit for Children (3)	ENGLSH LIT		
ENG 215 World Lit Before 1650 (3)	ENGLSH LIT	SCIENCES	
ENG 215H Honors World Lit (3)	ENGLSH LIT	Biological Sciences (▲=Lab Course)	
ENG 216 World Lit After 1650 (3)	ENGLSH LIT	▲BIO 101 Gen Biology (5)	BIO_SC 1030
ENG 225 Engl Lit Before 1800 (3)	ENGLSH 2200	▲BIO 101H Honors Gen Biol (5)	BIO_SC 1030
ENG 226 Engl Lit After 1800 (3)	ENGLSH 2200	BIO 102 Concepts in Biol (3)	BIO_SC 1010
ENG 228 Amer Lit Before 1865 (3)	ENGLSH 2300	BIO 109 Ecology & Env Cons (3)	BIO_SC BIO
ENG 229 Amer Lit After 1865 (3)	ENGLSH 2300	▲BIO 113 Microbiol Health Sci (4)	BIO_SC BIOL
ENG 235 Shakespeare Plays (3)	ENGLSH LIT	BIO 116 Anat & Phys Hsp Hlth (3)	BIO_SC BIO
ENG 235H Honors Shakespeare (3)	ENGLSH LIT	▲BIO 120 Human Anat & Phys (5)	BIO_SC BIOL
ENG 250 Mythology (3)	CL_HUM 1060	BIO 201 Genetics (4)	BIO_SC 2200
ENG 250H Honors Mythology (3)	CL_HUM 1060	▲BIO 205 Gen Botany (5)	BIO_SC 1200
ENG 255H Honors Lit Types Poetry (3)	ENGLSH LIT	▲BIO 206 Gen Zoology (5)	BIO_SC 1100
HUM 125 Sem in World Cult (1-3)	MISC HUM	▲BIO 207 Vertebrate Anat (4)	BIO_SC BIOL
HUM 250H Honors Hum (3)	MISC HUM	▲BIO 211 Anat & Physio I (4)	BIO_SC BIOL
HUM 260 Liberal Arts Sem (3)	MISC HUM	▲BIO 212 Anat & Physio II (4)	BIO_SC BIOL
HUM 260H Hon Liberal Arts Sem (3)	MISC HUM	▲BIO 215 Gen Microbiology (5)	BIO_SC BIOL
MSC 101 Fund of Music (3)	MUSIC_N1211	▲BIO 224 Field Biology (4)	BIO_SC BIOL
MSC 103 Music Theory I (4)	MUS_THR1220 & 1230		
MSC 104 Music Theory II (4)	MUS_THR1221 & 1231	Physical Sciences (▲=Lab Course)	
MSC 131 Appreciation of Music (3)	MUSIC_N1310	▲CHM 101 Intro Chem (5)	CHEM 1100
MSC 133 Jazz Appreciation (3)	MUSIC_NHUM	CHM 102 Concepts in Chem (3)	CHEM PSC
MSC 135 Hist of Rock & Roll (3)	MUSIC_NHUM	▲CHM 111 Gen Chemistry I (5)	CHEM 1320
MSC 137 World Music (3)	MUSIC_N1313	▲CHM 112 Gen Chemistry II (5)	CHEM 1330
MSC 231 Music Lit Before 1750 (3)	MUSIC_NHUM	▲PHY 101 Surv Phys Sci (5)	MISC PSCL
MSC 232 Music Lit After 1750 (3)	MUSIC_NHUM	PHY 102 Tpcs Phys Sci (3)	MISC PSC
PHL 101 Logic (3)	PHIL 1200	▲PHY 105 Phys Geology (4)	GEOL 1100
PHL 102 Intro to Phil (3)	PHIL 1000	▲PHY 106 Intro to Astronomy (4)	ASTRON 1010
PHL 201 World Religions (3)	REL_ST 2110	▲PHY 111 Elem Coll Physics I (5)	PHYSICS 1210
PHL 202 Ethics (3)	PHIL 1100	▲PHY 112 Elem Coll Physics II (4)	PHYSICS 1220
PHL 202H Honors Ethics (3)	PHIL 1100	PHY 118 Intro to Physics (2)	PHYSICS PSC
PHL 203 Medical Ethics (3)	PHIL 1150	▲PHY 223 Gen Physics I (4)	PHYSICS 2750
SPD 120 Theatre Appreciation (3)	THEATR 1100	▲PHY 224 Gen Physics II (4)	PHYSICS 2760
SPD 120H Hnrs Theatre Appreciatn (3)	THEATR 1100		
SPD 175 Public Speaking (3)	COMMUN 1200		
SPN 253 Span Reading (3)	SPAN HUM		
Social Sciences (◆=State Requirement)			
ECO 100 Intro to Econ (3)	ECONOM SSC		
ECO 101 Macroeconomics (3)	ECONOM 1015		
ECO 102 Microeconomics (3)	ECONOM 1014		
GEO 103 World Reg Geog (3)	GEOG SSC		
GEO 120 Sem in Global Stds (1)	MISC SSC		
◆HST 103 US Hist to Reconstr (3)	HIST 1100		
◆HST 103H Honors US Hist to Recon (3)	HIST 1100		
◆HST 104 US Hist from Reconstr (3)	HIST 1200		
◆HST 104H Honors US Hist from Recon (3)	HIST 1200		
HST 130 American Stds (3)	MISC SSC		
HST 201 Ancnt/Medieval Civil (3)	HIST 1500		
HST 202 Renaiss to Mod Euro (3)	HIST 1510		