

# University of Missouri

## Bachelor of Science in Computer Science

### Transfer Guide for Moberly Area 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 [WheelerAI@missouri.edu](mailto:WheelerAI@missouri.edu).

University of Missouri		Moberly Area Community College	
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)	
<b>English Exposition and Argumentation (3 credits)</b>			
ENGLSH 1000 Exposition and Argumentation	3	LAL 102 Composition 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 Science Elective	3	Select <a href="#">social science</a> from the general education list.	
Behavioral Science Elective	3	Select <a href="#">behavioral science</a> from the general education list.	
<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			
COMMUN 1200 Public Speaking	3	SPK 101 Public Speaking I (3)	
Humanity 2	3	Select <a href="#">humanities</a> from the general education list.	
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. 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		
<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 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.	
<b>Writing Intensive (6 credits)</b>			
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	
<b>Required Computer Science Courses (42 credits)</b>			
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	CIT 208 Data Struct I (3) <b>and</b> CIT 216 Data Struct II (3)	
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	CIT 201 Rel Database Sys (3)	
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)	
<b>Computer Science Electives (21 credits)</b>			
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	
<b>Mathematics (19 credits)</b>			
MATH 1500 Analytic Geometry and Calculus I	5	MTH 201 Analy Geom & Calc I (5)	
MATH 1700 Calculus II	5	MTH 202 Analy Geom & Calc II (5)	
MATH 2300 Calculus III	3	MTH 203 Analy Geom & Calc III (5)	
MATH 2320 Discrete Mathematical Structures	3	None	
STAT 4710 Intro to Mathematical Statistics	3	None	
<b>Technical Elective (3 credits)</b>			
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 <a href="#">computer science</a> and <a href="#">transfer equivalency</a> web sites for course options.	
<b>Sciences (12 credits) Select one science sequence (Physics, Chemistry, Biology, or Geology)</b>			
<b>Select one two-semester science sequence:</b>			
PHYSCS 2750 University Physics I and PHYSCS 2760 University Physics II	10	PHY 201 College Physics I (5) and PHY 202 College 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	PHY 121 Gen Chemistry I (5) and PHY 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	BIO 101 Biology (4) AND BIO 151 Intro Plant Biol (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 263 Geology (4) or AND Other Geology Course at MU	
<b>Select other courses to complete 12 credits in science:</b>			
ASTRON 1010 Intro to Astronomy	4	None	
ASTRON 1020 Intro to Lab Astronomy	2	None	
CHEM 1100 Atoms and Molecules with Lab	3	PHY 120 Found Chemistry (5)	
CHEM 1330 General Chemistry III with Lab	3	PHY 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 <a href="#">sciences</a> (biology, biochemistry, chemistry, geology) courses <i>beyond the levels listed above</i> from the general education list.	
<b>Non-Science Electives (9 credits)</b>			
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 <a href="#">transfer equivalency</a> web site for options.	
<b>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.</b>			
<b>Total Hours for Bachelor of Science in Computer Science</b>	<b>126</b>		

# General Education Courses

## Moberly Area Community College

<u>Moberly Area Community College Course</u>	<u>MU Equivalent</u>	<u>Moberly Area Community College Course</u>	<u>MU Equivalent</u>
<b>Behavioral Sciences</b>		<b>Social Sciences (continued) (◆=State Requirement)</b>	
PSY 100 Interpers Relations (3)	PSYCH BEH	HST 215 Amer in Vietnam (3)	HIST SSC
PSY 101 Gen Psychology (3)	PSYCH 1000	HST 215H Amer in Vietnam-Honors (3)	HIST SSC
PSY 201 Child Growth & Develop (3)	PSYCH 2410	HST 220 Amer on Screen I (3)	HIST SSC
PSY 205 Human Lifespan Develop (3)	PSYCH BEH	HST 221 Amer on Screen II (3)	HIST SSC
PSY 210 Intro Social Psych (3)	PSYCH 2310	HST 230H Mod British Hist-Honors (3)	HIST 1550
PSY 215 Health Psych & Bio-Feedback (3)	PSYCH BEH	◆PSC 103 American Govt (3)	POL_SC 1100
PSY 221 Psych of Personal Adjust (3)	PSYCH BEH	◆PSC 105 Funct & Pol Am Govt (3)	POL_SC SSC_ST
PSY 250 Abnormal Psych Honors (3)	PSYCH 2510	PSC 150 Internat Relations (3)	POL_SC 1400
SOC 101 Sociology (3)	SOCIOL 1000	PSC 201 British Pol/Soc (3)	POL_SC SSC
SOC 101H Sociology Honors (3)	SOCIOL 1000	SOC 205 Social Problems (3)	SOCIOL 3010
SOC 211 Soc of the Family (3)	SOCIOL 3420		
SOC 215 Social Deviance (3)	SOCIOL 1650		
<b>Humanities</b>		<b>Foreign Language</b>	
ART 101 Art Surv & Apprec I (3)	AR_H_A 1110	FLN 101 Elem Spanish (5)	SPAN 1100
ART 102 Art Surv & Apprec II (3)	AR_H_A 1120	FLN 102 Interm Spanish (5)	SPAN 1200
ART 115 Cult Study in Art (3)	ART_GNRHUM	FLN 111 Elem French (5)	FRENCH 1100
DRM 115 Cult Studies Theater (3)	THEATR HUM	FLN 112 Interm French (5)	FRENCH 1200
DRM 120 Theater Appreciation (3)	THEATR 1100	FLN 201 Span Readings (3)	SPAN 2100
GLS 201 Global Studies Sem (3)	MISC HUM	FLN 211 Fren Readings (3)	FRENCH 2100
LAL 120 Am Lit Survey to 1870 (3)	ENGLSH 2300		
LAL 121 Am Lit Survey 1870-Pres (3)	ENGLSH 2300		
LAL 125 African-Amer Lit (3)	ENGLSH 2400		
LAL 125H Afri-Amer Lit Honors (3)	ENGLSH 2400		
LAL 130H Lit of the American South Honors (3)	ENGLSH LIT		
LAL 150 Eng Lit Survey to 1750 (3)	ENGLSH 2200		
LAL 151 Eng Lit 1750-Present (3)	ENGLSH 2200		
LAL 151H Eng Lit Survey 1750-Present Hon (3)	ENGLSH 2200		
LAL 153 Intro Contemp Lit (3)	ENGLSH LIT		
LAL 210 Survey of Western Lit I (3)	ENGLSH LIT		
LAL 211 Survey of West Lit II (3)	ENGLSH LIT		
LAL 222 Masterpieces (3)	ENGLSH LIT		
LAL 250 Hist & Devlp Short Story (3)	ENGLSH LIT		
LAL 251 Science Fiction (3)	ENGLSH LIT		
LAL 252 Children's Lit (3)	ENGLSH LIT		
LAL 275 Classical Mythology (3)	CL_HUM 1060		
MUS 101 Fund of Music (3)	MUSIC_N1211		
MUS 102 Music Appreciation (3)	MUSIC_N1310		
MUS 103 Hist of Rock n Roll (3)	MUSIC_NHUM		
MUS 105 Music of America (3)	MUSIC_NHUM		
MUS 205 World Music (3)	MUSIC_N1313		
PHI 150 Intro to Philosophy (3)	PHIL 1000		
PHI 150H Intro to Phil-Honors (3)	PHIL 1000		
PHI 151 Intro to Logic	PHIL 1200		
PHI 152 Intro to Ethics (3)	PHIL 1100		
PHI 153 Bioethics	PHIL 1150		
PHI 155 Intro to the Bible (3)	REL_ST HUM		
PHI 157 War, Peace & Religion (3)	REL_ST HUM		
PHI 251 Religions of World (3)	REL_ST 2110		
SPK 101 Public Speaking I (3)	COMMUN 1200		
<b>Social Sciences (◆=State Requirement)</b>			
ECN 101 Macroeconomics (3)	ECONOM 1015		
ECN 102 Microeconomics (3)	ECONOM 1014		
GEO 101 World Geog I (3)	GEOG 1200		
GEO 102 World Geog II (3)	GEOG 1100		
HST 101 Western Civ I (3)	HIST 1500		
HST 102 Western Civ II (3)	HIST 1510		
◆HST 105 Amer Hist to 1865 (3)	HIST 1100		
◆HST 105H Amer Hist to 1865-Honors (3)	HIST 1100		
◆HST 106 Amer Hist from 1865 (3)	HIST 1200		
◆HST 106H Amer Hist from 1865-Honors (3)	HIST 1200		
HST 150 African Amer Hist I (3)	HIST SSC		
HST 151 African Amer Hist II (3)	HIST SSC		
HST 201 Amer Women, Amer Times (3)	HIST 2400		
HST 201H Amer Women, Amer Times-Honors (3)	HIST 2400		
		<b>Biological Sciences (▲=Lab Course)</b>	
		▲BIO 101 Biology (4)	BIO_SC 1030
		BIO 105 Intro Conserv Biol (3)	BIO_SC BIO
		BIO 105H Intro Conserv Biol (3)	BIO_SC BIO
		▲BIO 150 Gen Zoology (5)	BIO_SC 1100
		▲BIO 151 Intro Plant Biol (5)	BIO_SC 1200
		▲BIO 205 Human Anatomy (4)	BIO_SC BIOL
		▲BIO 206 Microbiology (4)	BIO_SC BIOL
		▲BIO 209 Physiology (4)	BIO_SC BIOL
		<b>Physical Sciences (▲=Lab Course)</b>	
		PHY 110 Surv of Mod Physics (3)	PHYSCS PSC
		▲PHY 120 Found Chemistry (5)	CHEM 1100
		▲PHY 121 Gen Chemistry I (5)	CHEM 1320
		▲PHY 122 Gen Chemistry II (5)	CHEM 1330
		▲PHY 125 Found of Physics (5)	PHYSCS PSCL
		▲PHY 201 College Physics I (5)	PHYSCS 2750
		▲PHY 202 College Physics II (5)	PHYSCS 2760
		PHY 221 Quant Analysis (3-5)	CHEM PSC
		▲PHY 222 Organic Chem I (5)	CHEM 2030 & 2130
		PHY 260 Earth Science (3)	MISC PSC
		PHY 262 Gen Astronomy (3)	ASTRON PSC
		▲PHY 263 Geology (4)	GEOLOG 1100
		PHY 264 Atmospheric Sci (3)	ATM_SC 1050