

University of Missouri

Bachelor of Science in Computer Science

Transfer Guide for Missouri State University - West Plains

This plan is intended only as a general guide based on requirements in the 2014-2015 University of Missouri undergraduate catalog. Check the following web sites for current course descriptions, prerequisites, course equivalencies and other specific details about the Computer Science major:

- 1) College Catalog (<http://majors.missouri.edu>)
- 2) Transfer Admission (<http://transfer.missouri.edu>)
- 3) Transfer Equivalencies (<https://www.transferology.com/school/missouri> or <http://transfercourses.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		Missouri State University - West Plains
COURSE	CREDITS	EQUIVALENT COURSE (CREDITS)
English Exposition and Argumentation (3 credits)		
ENGLISH 1000 Exposition and Argumentation	3	ENG 110 Writing I (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 on page 3.
Social Science Elective	3	Select social science from the general education list on page 3.
Behavioral Science Elective	3	Select behavioral science from the general education list on page 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		
COMMUN 1200 Public Speaking	3	COM 115 Fund Public Speaking (3)
Humanity 2	3	Select humanities from the general education list on page 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 on page 3.
Foreign Language 2	5	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 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 on page 3. 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	No Equivalent
CMP SC 2050 Algorithm Design and Programming II	3	No Equivalent
CMP SC 3050 Advanced Algorithm Design	3	No Equivalent
CMP SC 2270 Intro to Digital Logic	3	No Equivalent
CMP SC 3280 Computer Organization & Assembly Language	3	No Equivalent
CMP SC 3330 Object Oriented Programming	3	No Equivalent
CMP SC 3380 Database Applications & Information Systems	3	No Equivalent
CMP SC 4050 Design and Analysis of Algorithms I	3	No Equivalent
CMP SC 4320 Software Engineering I	3	No Equivalent
CMP SC 4520 Operating Systems I	3	No Equivalent
CMP SC 4850 Computer Networks I	3	No Equivalent
CMP SC 4970 Senior Capstone Design I (WI)	3	No Equivalent
CMP SC 4980 Senior Capstone Design II	2	No Equivalent

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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	No Equivalent No Equivalent No Equivalent
Additional 4000-level CMP SCI courses	9	No Equivalent
Other CMP SC course (2000-level or higher)	3	No Equivalent
Mathematics (19 credits)		
MATH 1500 Analytic Geometry and Calculus I	5	MTH 261 An Geom & Calc I (MRP) (5)
MATH 1700 Calculus II	5	MTH 280 An Geom & Calc II (MRP) (5)
MATH 2300 Calculus III	3	No Equivalent
MATH 2320 Discrete Mathematical Structures	3	No Equivalent
STAT 4710 Intro to Mathematical Statistics	3	No Equivalent
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 203 Found of Physics I (5) and PHY 204 Found of Physics II (5)
PHYSICS 1210 College Physics I and PHYSICS 1220 College Physics II	8	PHY 123 Intro Physics I (MRP) (4) and PHY 124 Intro Physics II (MRP) (4)
CHEM 1320 College Chemistry I and CHEM 1330 College Chemistry II	8	CHM 160 Gen Chemistry I (4) and CHM 161 General Chemistry I Lab (1) and CHM 170 Gen Chemistry II (3) and CHM 171 Gen Chemistry Lab
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	BMS 110 Concepts Biomedical Sci (4) AND Biology course at MU
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	GLG 110 Physical Geology (4) or GLG 171 Environmental Geology (4) AND Geology course at MU
Select other courses to complete 12 credits in science:		
ASTRON 1010 Intro to Astronomy	4	AST 115 Basic Astronomy (4)
ASTRON 1020 Intro to Lab Astronomy	2	No Equivalent
CHEM 1100 Atoms and Molecules with Lab	3	No Equivalent
CHEM 1330 General Chemistry III with Lab	3	CHM 170 Gen Chemistry II (3) and CHM 171 Gen Chemistry Lab
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 on page 3.
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

Missouri State University – West Plains

– Equivalencies checked in June 2014 –

Missouri State University – West Plains Course	MU Equivalent	Missouri State University – West Plains Course	MU Equivalent
Behavioral Sciences			
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ANT 125 The Human Story (3)	ANTHRO 1000	PSY 274 Abnormal Psychology (3)	PSYCH 2510
ANT 226 Cultural Anthro (3)	ANTHRO 2030	PSY 280 Student Development (4)	PSYCH BEH
CFD 155 Prin Human Dev (3)	H_D_FS 2400	PSY 285 Devel Early Child&Elem (3)	PSYCH BEH
COM 205 Interpersonal Comm & Thr (3)	COMMUN 3561	SOC 150 Principles Of Sociology (3)	SOCIOL 1000
ENG 296 Intro English Linguistic (3)	LINGST 1060	SOC 271 The Community (3)	SOCIOL BEH
PSY 121 Introductory Psych (3)	PSYCH 1000	SOC 275 Soc Of Rural Life (3)	SOCIOL BEH
PSY 197 Topics In Psych (1)	PSYCH BEH	SOC 276 Soc Of Aging (3)	SOCIOL 2230
PSY 250 Analy Interpersonal Beh (3)	PSYCH BEH	SOC 290 Soc. Gender Roles (3)	SOCIOL 3320
PSY 260 Educational Psychology (3)	PSYCH BEH		
Humanities			
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ART 200 Art In Context (3)	AR_H_A HUM	LLT 201 Masterpiece of Mod Cont Lit (3)	ENGLISH LIT
ART 274 Hist E Asian Art (3)	AR_H_A 1230	LLT 202 Major Authors in Translation (3)	ENGLISH LIT
COM 115 Fund Public Speaking (3)	COMMUN 1200	MED 120 Intro Mass Communication (3)	COMMUN 2100
ENG 184 Mini Lit (1-3)	ENGLISH LIT	MED 274 Understanding Film (3)	FILM_S 2810
ENG 230 Introductory Rdg In Lit (3)	ENGLISH 2100	PHI 105 Logic, Lang & Argument (3)	PHIL 1200
ENG 231 Major Writers Of English (3)	ENGLISH 2160	PHI 106 Elements Symbolic Logic (3)	PHIL 2700
ENG 234 Lit For Children (3)	ENGLISH 2000	PHI 110 Intro Philosophy (3)	PHIL 1000
ENG 235 Critical Approaches Lit (3)	ENGLISH 2100	PHI 115 Intro Ethics (3)	PHIL 1100
ENG 236 Minorities In Lit (3)	ENGLISH 2300	REL 100 Rel & Human Culture (3)	REL_ST 1100
ENG 280 Short Stories (3)	ENGLISH 2000	REL 101 Intro Old Testament (3)	REL_ST 2500
ENG 285 Subjects In Folklore (1-3)	ENGLISH 2700	REL 102 Intro New Testament (3)	REL_ST 2510
ENG 288 Lit Of Work:Rdgs In Prof (3)	ENGLISH 2000	REL 103 Hist English Bible (1)	REL_ST HUM
HNR 150 Honors I Sem (3)	MISC HUM	REL 131 Religion In America (3)	REL_ST HUM
HNR 250 Honors II Sem (3)	MISC HUM	REL 197 Topic Religious Studies (1-3)	REL_ST HUM
LLT 121 Classical Mythology (3)	CL_HUM 1060	THE 101 Intro Performing Arts (3)	THEATR 1100
Social Sciences (◆= State Requirement)			
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AGR 144 Agric Econ I (4)	AG_EC 1042	HST 224 Us Civil War (3)	HIST SSC
ART 274 Hist E Asian Art (3)	AR_H_A 1230	◆HST 226 Intro Hist Of Missouri (3)	HIST 2440
ECO 155 Prin Macroecon (3)	ECONOM 1015	HST 232 Afri-Amer Hist Snc 1865 (3)	HIST SSC
ECO 165 Prin Microecon (3)	ECONOM 1014	INS 211 Insurance (*)	FINANC 3300
GRY 100 World Regional Geog (3)	GEOG SSC	◆PLS 101 Amer Democracy/Citizen (3)	POL_SC 1100
GRY 108 Ecology & Society (3)	GEOG 2660	PLS 102 Intro Amer Public Policy (3)	POL_SC SSC
GRY 110 Economic Geography (3)	GEOG 2710	◆PLS 103 Mo Govt & Politics (1)	POL_SC SSC_ST
GRY 142 Intro Physical Geog (4)	GEOG 2610	◆PLS 169 Intro Political Science (3)	POL_SC 1700
HST 103 World History to 1500 CE (3)	HIST SSC	PLS 205 Intro Comp Govt (3)	POL_SC 2700
HST 104 World History Since 1500 CE (3)	HIST SSC	PLS 232 International Relations (3)	POL_SC 1400
◆HST 121 Survey Hist Us To 1877 (3)	HIST 1100	SOC 152 Social Problems (3)	SOCIOL 3010
◆HST 122 Survey Hist Us Snc 1877 (3)	HIST 1200		
Foreign Language			
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CHI 101 Elem Chinese I (3)	CHINSE 1100A	GRM 102 Elem German II (3)	GERMAN 1100B
CHI 102 Elem Chinese II (3)	CHINSE 1100B	GRM 201 Intermed German I (3)	GERMAN 1200
CHI 201 Intermed Chinese I (3)	CHINSE 1200A	GRM 202 Intermed German II (3)	GERMAN 2100
CHI 202 Intermed Chinese II (3)	CHINSE 1200B	SPN 101 Elem Spanish I (3)	SPAN 1100A
FRN 101 Elem French I (3)	FRENCH 1100A	SPN 102 Elem Spanish II (3)	SPAN 1100B
FRN 102 Elem French II (3)	FRENCH 1100B	SPN 201 Intermed Spanish I (3)	SPAN 1200
GRM 101 Elem German I (3)	GERMAN 1100A	SPN 202 Intermed Spanish II (3)	SPAN 2100
SCIENCES			
Biological Sciences (▲=Lab Course)			
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AGR 101 Animal Science (4)	AN_SCI 1011	▲BIO 215 Intro Diversity Of Life (2)	BIO_SC BIOL
AGR 170 Intro to Horticulture (3)	PLNT_S 2075	BIO 235 Prin Genetics (4)	BIO_SC 2200
AGR 215 Soils (3)	SOIL 2100	▲BMS 110 Concepts Biomedical Sci (4)	BIO_SC 1030
BIO 101 Biology in Your World (3)	BIO_SC 1010	BMS 230 Human Genetics (3)	BIO_SC BIO
▲BIO 121 General Biology I (4)	BIO_SC 1500A	▲BMS 267 Human Anatomy (4)	BIO_SC BIOL
▲BIO 122 General Biology II (4)	BIO_SC 1500B	▲BMS 268 Human Physiology (4)	BIO_SC BIOL
▲BIO 210 Elements Of Microbiology (3)	BIO_SC BIOL	CFD 130 Essentials Of Nutrition (3)	NUTR_S 1034
Physical Sciences (▲=Lab Course, ◆= Math Reasoning Proficiency)			
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AGR 215 Soils (3)	SOIL 2100	▲GLG 115 Life Of The Past (4)	GEOL PSCL
AST 113 Modern Astronomy (3)	ASTRON PSC	▲GLG 171 Environmental Geology (4)	GEOL 1200
AST 114 Survey Of Astronomy (3)	ASTRON PSC	GRY 135 Atmospheric Science (4)	GEOG 1050
▲AST 115 Basic Astronomy (4)	ASTRON 1010	▲PHY 100 Survey of Physics w/Lab (4)	PHYSCS PSCL
CHM 106 Fund Chemistry (4)	CHEM PSC	▲PHY 101 Physics by Inquiry for Educ (4)	PHYSCS PSCL
CHM 160 Gen Chemistry I (4)	CHEM 1320A	PHY 102 Survey of Physics (3)	PHYSCS PSC
▲CHM 161 General Chemistry I Lab (1)	CHEM 1320B	◆▲PHY 123 Intro Physics I (MRP) (4)	PHYSCS 1210
CHM 170 Gen Chemistry II (3)	CHEM 1330A	◆▲PHY 124 Intro Physics II (MRP) (4)	PHYSCS 1220
▲CHM 171 General Chemistry II Lab (1)	CHEM 1330B	▲PHY 203 Found of Physics I (5)	PHYSCS 2750
CHM 200 Essentials Organic Chem (5)	CHEM 2030 & 2130	▲PHY 204 Found of Physics II (5)	PHYSCS 2760
▲GLG 110 Physical Geology (4)	GEOL 1100		