

UNIVERSITY OF CENTRAL MISSOURI

MCC A.A. to UCM B.S. in Software Engineering

YEARS 1 AND 2 AT MCC (<i>UCM equivalencies in parentheses</i>)		YEARS 3 AND 4 AT UCM	
COMMUNICATIONS – 9 Credit Hours		MAJOR REQUIREMENTS - 50 Credit Hours	
ENGL 101 Composition and Reading I (ENGL 1020)	3	CS 4300 Algorithm Design and Analysis	3
ENGL 102 Composition and Reading II (ENGL 1030)	3	CS 4600 Database Theory and Applications	3
COMM 100 Fundamentals of Speech (COMM 1000)	3	CYBR 3130 Secure Programming	3
MATHEMATICS – 3 Credit Hours		SE 3900 Software Requirements Engineering	3
If planning to take MATH 180 and MATH 190 as transfer credit one of the following classes must be taken to fulfill an MCC prerequisite requirement.		SE 3910 Software Engineering	3
MATH 130 Trigonometry (MATH 1112) (3) <i>or</i>		SE 4930 Software Testing and Quality Assurance	3
MATH 150 PreCalculus (MATH 1150) (5)		SE 4940 Software Design and Architecture	3
AMERICAN INSTITUTIONS – 3 Credit Hours		SE 4950 Software Project Management	3
HIST 120 (HIST 1350), 121 (HIST 1351), <i>or</i> POLS 136 (POLS 1510)	3	SE 4960 Software Project Management	3
SCIENCES – 7 Credit Hours		ACST 3311 Introduction to Probability and Statistics	3
\$CHEM 111 General College Chemistry I (CHEM 1131)	5	CS 4920 Senior Project <i>or</i>	3
\$GEOL 101 Physical Geology (EASC 1004)	5	SE 4920 Senior Project	3
WESTERN CIVILIZATIONS – 3 Credit Hours		Electives from the following –6 Credit Hours	
HIST 133 (HIST 1400) <i>or</i> HIST 134 (HIST 1402)	3	CS 3100 Programming Languages	3
SOCIAL SCIENCES – 6 Credit Hours		CS 3110 Applications Programming in C# and .NET	3
ANTH 100 (ANTH 1810), ANTH 110 (ANTH 1820), PSYC 140 (PSY 1100), SOCI 160 (SOC 1800), ECON 210 (ECON 1010) <i>or</i> ECON 211 (ECON 1011)	3	CS 3200 Computer Organization and Architecture	3
HUMANITIES – 3 Credit Hours		CS 3800 Applications Development with VB.NET	3
ENGL 218 (GNED 1909), 220 (ENGL 2210), 221 (ENGL 2215), 222 (ENGL 2200), 223 (ENGL 2205), 268 (ENGL 2270), PHIL 100 (PHIL 1000), 148 (PHIL 1410), <i>or</i> 203 (PHIL 2300)	3	CS 3810 Introduction to Game Design	3
HUMANITIES APPRECIATION – 3 Credit Hours		CS 4000 Special Problems in Computer Science	3
ART 108 (ART 1800), ART 150 (ART 1815), ART 151 (ART 1825) MUSI 108 (MUS 1210), <i>or</i> THEA 106 (THEA 2400), ARAB, FREN, GERM, CHIN, SIGN, SPAN 101 (SPAN 1601), SPAN 102 (SPAN 1602), SPAN 203 (SPAN 2601), <i>or</i> SPAN 204 (SPAN 2602)	3	CS 4020 Internship	1
COMMON CORE ELECTIVES – 5 Credit Hours		CS 4110 Mobile Applications Programming with Android	3
Take additional common core electives to reach 42 hours of general education. Offerings available at http://www.mcckc.edu/programs/aa/		CS 4120 Advanced Apps Programming in Java	3
GENERAL DEGREE REQUIREMENTS – 7 Credit Hours		CS 4500 Operating Systems	3
COLL 100 First Year Seminar	1	CS 4510 Introduction to Distributed Systems	3
Global Diversity	3	CS 4610 Introduction to Cloud Computing	3
Course options available at http://www.mcckc.edu/programs/aa/		CS 4620 Big Data Analytics	3
CSIS 115 (CIS 1600) or higher	3	CS 4630 Data Mining	3
ELECTIVES – 11 Credit Hours		CS 4700 Artificial Intelligence	3
\$BIOL 104 General Botany (BIOL 1111)	5	CS 4710 Introduction to Machine Learning	3
\$BIOL 106 General Zoology (BIOL 1112)	5	CS 4800 Computer Networking	3
\$BIOL 123 General Biology for Majors I (BIOL 1110)	4	CS 4810 Computer Graphics	3
\$BIOL 214 Principles of Genetics (BIOL 2510)	4	CYBR 3300 Introduction to Cryptography	3
\$CHEM 112 General College Chemistry II (1132)	5	CYBR 4140 Web Applications Security	3
**CSIS 123 Programming Fundamentals (CS 1100)	3	CYBR 4820 Introduction to Information Assurance	3
**CSIS 222 Object-Oriented Programming with Java (CS 1110)	3	Math and Science Electives – 14 Credit Hours	
#CSIS 152 Linux Operating System AND	6	Electives from the following – 8-14 Credit Hours	
#CSIS 223 Object-Oriented Programming (CS 3500)	3	EASC 1114 Weather and Climate	4
#CSIS 228 Advanced Web Development (CS3120)	3	EASC 2100 Engineering Geology	4
**CSIS 271 Data Structures and Algorithm Analysis (CS 2300)	3	EASC 4300 Earth Resources	4
#CSIS 279 Web Database Programming (CS4130)	3	Electives from the following – 0-6 Credit Hours	
\$GEOL 102 Historical Geology (EASC 2200)	4	MATH 3151 Differential Equations	3
**MATH 141 Discrete Structures for CS I (CS 2400)	3	MATH 3710 Linear Algebra	3
**MATH 180 Analytic Geometry and Calculus I (MATH 1151)	5	MATH 4450 Introduction to Graph Theory	3
**MATH 190 Analytic Geometry and Calculus II (MATH 1152)	5	Electives from the following – 0-3 Credit Hours	
\$MATH 210 Analytic Geometry and Calculus III (MATH 2153)	5	BIOL 2010 Human Biology	3
\$PHYS 106 General Astronomy (EASC 3112)	4	BIOL 4102 Evolution	3
\$PHYS 130 General Physics I (PHYS 1101) <i>or</i>	5	EASC 3010 Environmental Geology	3
\$PHYS 220 Engineering Physics (PHYS 2121)		FREE ELECTIVES – 6 - 13 Credit Hours	
\$PHYS 131 General Physics II (PHYS 1102) <i>or</i>	5	GENERAL EDUCATION REQUIREMENTS – 3 Credit Hours	
\$PHYS 221 Engineering Physics II (PHYS 2122)		CS 1000 Computers and Modern Society	3
		**Course fulfills a major requirement at UCM and if not taken as part of AA must be taken at UCM	
		# Fulfills a part of the required UCM Core Electives	
		\$ Fulfills a part of the required UCM Math & Science Electives	
		Minimum Hours Required for A.A.: 60	
		Minimum Hours Required for B.S.: 120	

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VALIDITY OF THIS TRANSFER GUIDE

This guide is based on the UCM 2018 Undergraduate Catalog and is subject to change. This guide is a recommendation only and your actual program may vary. Time to degree completion and course sequencing will depend on any credits transferred to UCM and on planned placement in math, reading, and writing. See the current UCM Undergraduate Catalog and MCC Course Catalog for a complete listing of academic policies, curriculum, prerequisites, and course descriptions.

GENERAL EDUCATION REQUIREMENTS

Students who hold an Associate in Arts Degree from MCC or have met the Missouri 42-hour General Education Core requirements are considered to have fulfilled all UCM General Education requirements, except specific general education classes required by this major. Lists of General Education Requirements can be found in the UCM Catalog.

For those students with an associate degree other than the Associate of Arts or who have not completed the A.A. degree, transfer courses are evaluated on a course-by-course basis.

REQUIREMENTS FOR THIS MAJOR

- Minimum of 120 hours
- Minimum of 30 hours of upper-level credit (3000/4000 level). Courses taken at a two-year college MAY be articulated for an upper-level course but WILL NOT count towards upper-level hour requirements.
- Minimum of 12 hours of upper-level credit (3000/4000 level) in major
- No minor is required for this degree.
- No modern language is required for this degree.

RESIDENCY REQUIREMENTS FOR A DEGREE AT UCM

A candidate for any bachelor's degree must have earned the following minimum hours at UCM:

- 30 hours overall
- 20 upper-level hours (3000/4000 level courses)
- 15 hours in the major
- 9 upper-level hours in the major
- 9 hours in minor (if applicable)
- 1 upper-level hour in minor (if applicable)
- The last 12 semester hours required for the degree

GPA REQUIRED FOR GRADUATION

Students must achieve a minimum GPA of 2.00 in all GPAs to qualify for graduation. This includes cumulative GPA, UCM GPA, major GPA, and minor GPA (if applicable). Some degrees have additional GPA requirements.

DUAL ADMISSION

Students are encouraged to apply for dual admission during their first semester at MCKC to coordinate associate degree completion with degree requirements at UCM. To learn more visit www.ucmo.edu/undergrad/dualadmissions.cfm.

GENERAL EDUCATION ASSESSMENT

All UCM students are required to pass a General Education Assessment (GEA). Students transferring in more than 45 hours are required to take the test during their first semester at UCM. Testing Services can be contacted by phone at (660) 543-4919 or by e-mail at testingservices@ucmo.edu.

To learn more visit

www.ucmo.edu/assessment/documents/gened_policy.pdf

CATALOGS

Metropolitan Community College catalog:

<http://www.mcckc.edu/PDF/academiccatalog.pdf>

UCM catalog: www.catalog.ucmo.edu

TRANSFER WORK

Arrange for all transfer work to be posted at UCM at the time of application. An official transcript must be received at UCM directly from each school attended. Individual transfer equivalencies can be found online at www.ucmo.edu/corequiv. Transcripts can be sent to: University of Central Missouri, Office of Admissions, Ward Edwards 1400, Warrensburg, MO 64093

UCM TRANSFER ADVISORS

UCM advisors for programs in the College of Health, Science, and Technology (CHST) are located in the Success Advising Center located in Union 128. Contact your advisor by calling (660)543-4721 or by email success@ucmo.edu.

PROGRAM CONTACT

The School of Computer Science and Mathematics. W.C. Morris room 222. (660) 543-4930. www.ucmo.edu/cs-math.
