

# UNIVERSITY OF CENTRAL MISSOURI

## SFCC A.A. to UCM B.S. in Actuarial Science and Statistics

YEARS 1 AND 2 AT SFCC		YEARS 3 AND 4 AT UCM	
<b>(UCM equivalencies in parentheses)</b>		<b>MAJOR REQUIREMENTS - 40 Hours</b>	
<b>COMMUNICATIONS – 9 Hours</b>		ACST 2310 Statistics and Data Analysis	3
ENGL 101 English Composition I (ENGL 1020)	3	ACST 3311 Introduction to Mathematical Statistics	3
ENGL 102 English Composition II (ENGL 1030)	3	ACST 4312 Probability Models	3
COMM 101 Public Speaking (COMM 1000)	3	ACST 4321 Regression Analysis	3
<b>AMERICAN INSTITUTIONS – 3 Hours</b>		ACST 4322 Time Series Models and Analysis	3
POLS 101 (POLS 1510), HIST 101 (HIST 1350), or HIST 102 (HIST 1351)	3	ACST 4530 Statistical Modeling	3
<b>SOCIAL SCIENCES – 3 Hours</b>		ACST 4645 Senior Projects in Actuarial Sci. & Statistics	3
For Option 1: **ECON 101 (ECON 1010)	3	CS 2400 Discrete Structures <b>or</b>	3
For Option 2:		MATH 2410 Discrete Mathematics	
BADM 101 (MGT 1300), ECON 101 (ECON 1010), 102 (ECON 1011), GEOG 101 (GEOG 2212), HIST 108 (HIST 1400), 109 (HIST 1402), or POLS 103 (POLS 1500)	3	<b>Option 1 Actuarial Science - 32 Hours</b>	
<b>BEHAVIORAL SCIENCE – 3 Hours</b>		ACST 4501 Actuarial Exam Review Problem Set I	1
PSY 101 (PSY 1100), 102 (PSY 2220), 104 (PSY 1320), BADM 107 (FIN 1820), SOC 100 (SOC 1800), or 102 (SOC 2825)	3	ACST 4510 Mathematics of Finance	3
<b>LITERATURE – 3 Hours</b>		ACST 4511 Actuarial Exam Review Problem Set II	1
LIT 101, LIT 107 (ENGL 2200 or 2205), LIT 109 (ENGL 2210 or 2215), LIT 112 (ENGL 2220), or LIT 114.	3	ACST 4520 Life Contingencies I	3
<b>FINE ARTS – 3 Hours</b>		CS 3800 Applications Development with VB.NET	3
ART 101 (ART 1800), 120 (ART 1825), MUS 101 (MUS 1210), 103 (MUS 2311), 104 (MUS 3212) or THEA 107 (THEA 2400) THEA 125	3	ECON 3010 Intermediate Macroeconomics	3
<b>HUMANITIES – 3 Hours</b>		FIN 3861 Financial Management I	3
AGRI 106, FREN 101 (FREN 1201), PHIL 101 (PHIL 1000), 102 (PHIL 2300), 104, SOC 120 (ECEL 2110) or SPAN 101 (SPAN 1601)	3	RMI 3803 Principles of Insurance	3
<b>MATHEMATICS – 3 Hours</b>		FIN 4817 Managing Financial Derivatives	3
**MATH 130 Calculus & Analytic Geometry I (MATH 1151)	5	<b>Electives from the following</b>	9
<b>LIFE AND PHYSICAL SCIENCES – 8 Hours</b>		ACST 4323 Statistical Aspects of Experimental Design	3
Choose one course from life sciences and one from physical sciences.		ACST 4331 SAS Programming for Statistical Analysis	3
<b>Life sciences:</b> BIO 100 (BIOL 1110), 103 (BIOL 2010), 105 (BIOL 3721), 112 (BIOL gened), 125 (BIOL 1111), 126 (BIOL 1112), 208 (BIOL 3401 & BIOL 3402 if taken w/ BIO 207)	3-5	ACST 4390 Internship in Actuarial Science or Statistics	1
<b>Physical sciences:</b> CHEM 101 (CHEM 1104), 123 (CHEM 1131) AGRI 119 (AGRI 2330), EASC 101 (EASC 1004), 106 (EASC 1004), 118 (EASC 3010), 120 (EASC 3112), PHYS 103 (PHYS 1103), 105 (PHYS 1101), or 118 (PHYS 2121)	3-5	ECON 3030 Intermediate Microeconomics	3
<b>^WELLNESS – 1 Hour Minimum</b>		FIN 3850 Principles of Finance	3
HLTH 101 (PE 1206), WELL 116, 117, 118, 119, 121 or 122, or EDUC 110	1-2	MATH 3710 Linear Algebra	3
<b>GENERAL EDUCATION ELECTIVE – 1-3 Hours</b>		<b>Electives from the following</b>	9-11
Choose one course to total 42 hours In general education.	1-3	ACST 4390 Internship in Actuarial Science or Statistics	3
<b>ELECTIVES – 22 Hours Minimum</b>		ACST 4501 Actuarial Exam Review-Problem Set I	1
**CIS 158 JAVA (CS 1100)	3	ACST 4510 Mathematics of Finance	3
**MATH 131 Calculus & Analytic Geometry II (MATH 1152)	5	ACST 4511 Actuarial Exam Review-Problem Set II	1
**MATH 132 Calculus & Analytic Geometry III (MATH 2153)	5	ACST 4520 Life Contingencies I	3
#MATH 134 Differential Equations (MATH 3151)	3	CS 3800 Applications Development with VB.NET	3
		CS 4710 Introduction to Machine Learning	3
		Math 3151 Differential Equations	3
		MATH 4150 Advanced Calculus I	3
		<b>FREE ELECTIVES - 12-15 Hours</b>	
		<b>**Course fulfills a major requirement at UCMO and if not taken as part of AA must be taken at UCM</b>	
		#Fulfills a part of the required UCM Option 1 or 2 Electives	
<b>Minimum Hours Required for A.A.: 64 hours</b>			
<b>Minimum Hours Required for B.S.: 120 hours</b>			

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### VALIDITY OF THIS TRANSFER GUIDE

This guide is based on the UCM 2017 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 SFCC 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 SFCC 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 SFCC to coordinate associate degree completion with degree requirements at UCM. To learn more visit [www.ucmo.edu/undergrad/dualadmissions.cfm](http://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](mailto:testingservices@ucmo.edu). To learn more visit [www.ucmo.edu/assessment/documents/gened\\_policy.pdf](http://www.ucmo.edu/assessment/documents/gened_policy.pdf)

### CATALOGS

State Fair Community College catalog: <http://www.sfccmo.edu/pages/104.asp>  
UCM catalog: [www.ucmo.edu/catalogs](http://www.ucmo.edu/catalogs)

### 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](http://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 CHST Advising Center located in Administration 105. Contact your advisor by calling (660)543-4554 or by email [chstadvising@ucmo.edu](mailto:chstadvising@ucmo.edu).

### UCM DEPARTMENT CONTACT

The School of Computer Science and Mathematics is located in W.C. Morris room 222. You can contact them by telephone at (660) 543-4930. To learn more visit [www.ucmo.edu/cs-math](http://www.ucmo.edu/cs-math).

### CREDIT FOR MILITARY SERVICE

^Veterans, members of the National Guard and active duty military personnel may receive 2 hours of wellness credit by presenting a copy of their DD214 or similar record. See your SFCC navigator for more information.