



Johnson County Community College
Transfer Program to University of Central Missouri
Actuarial Science and Statistics, BS
Actuarial Science Option
Statistics Option
2025-2026 Catalog

Contact: Phoebe McLaughlin, Ph.D.
Phone: 660-543-4554
Email: pmclaughlin@ucmo.edu
Home Page:
<https://www.ucmo.edu/academics/programs/majors/chst/mathematics-actuarial-sci-and-statistics/statistics/actuarial-science-and-statistics-option-2-statistics-bs/index.php>

The [Associate of Arts degree \(A.A.\)](#) at JCCC is a general transfer degree and partners well with the first two years of most bachelor degree programs. Students who transfer to UCM with an Associate of Arts degree are considered to have met all 42 hours of UCM's General Education requirements, with the exception of Major/Minor-Required General Education courses and the Constitution Requirement. Visit the [UCM General Education Program guide](#) for details. The elective hours within the A.A. allow students to complete additional general education and lower division courses required for specific majors/minors.

Students who transfer to UCM without a degree (or a degree other than an AA) will have all coursework evaluated on a course-by-course basis. JCCC students not completing the AA degree should visit the [UCM General Education Program guide](#) for course equivalents and also the UCM catalog for any specific or additional General Education requirements for their UCM program of study.

NOTE: Courses taken to fulfill General Education requirements may not be taken on the pass/fail basis.

Students should be cognizant of UCM's Upper-Level Course Requirement and Residence Requirement, especially if enrolling in more than 60 hours at JCCC. Visit the [UCM General Education Program guide](#) for details.

The Actuarial Science and Statistics, BS degree requires a minimum of 120 credit hours. This degree offers two options: Actuarial Science option or Statistics option.

It is the STUDENT'S RESPONSIBILITY to check for updates to all transfer information. This transfer guide is provided as a service and is updated as needed. Degree requirements at the four-year colleges are subject to change by those institutions. To ensure you have the most accurate up to date information about the program, it is imperative you meet with an advisor at the transfer institution.

GENERAL EDUCATION REQUIREMENTS with JCCC Equivalents - All students must complete a minimum of 42 credit hours in general education. The following general education courses are required by this major.

UCM Course	Hrs	JCCC Equivalents	Hrs
COMM 1000 Public Speaking GE	3	COMS 121 Public Speaking OR COMS 125 Personal Communication	3
ECON 1010 Principles of Macroeconomics GE (<i>Actuarial Science Option only</i>)	3	ECON 230 Principles of Macroeconomics	3
ECON 1011 Principles of Microeconomics GE (<i>Actuarial Science Option only</i>)	3	ECON 231 Principles of Microeconomics	3
MATH 1151 Calculus I GE	5	MATH 241 Calculus I*	5

ACTUARIAL SCIENCE AND STATISTICS CORE REQUIREMENTS (44 hours)

with JCCC Equivalents

UCM Course	Hrs	JCCC Equivalents	Hrs
CS 1100 Computer Programming I	3	CS 200 Concepts of Programming Algorithms Using C++* OR CS 201 Concepts of Programming Algorithms using C#* OR CS 205 Concepts of Programming Algorithms using Java* OR	4 4 4
OR CS 1030 Python Programming I	3	CS 134 Programming Fundamentals OR IT 202 IT Scripting*	4 3
CS 2400 Discrete Structures OR	3	CS 210 Discrete Structures I*	3
MATH 2410 Discrete Mathematics	3	No equivalent	--
MATH 1152 Calculus II	5	MATH 242 Calculus II*	5
MATH 2153 Calculus III	3	MATH 243 Calculus III*	5

ACTUARIAL SCIENCE OPTION REQUIREMENTS (33 hours) with JCCC Equivalent

UCM Course	Hrs	JCCC Equivalents	Hrs
CS 2030 Python Programming II	3	CS 202 Concepts of Programming Algorithms using Python*	4

ACTUARIAL SCIENCE OPTION ELECTIVES (9 hours) with JCCC Equivalents

UCM Course	Hrs	JCCC Equivalents	Hrs
ACCT 1101 Foundations of Financial Reporting	3	ACCT 121 Accounting I AND ACCT 122 Accounting II*	3 3
ACCT 2102 Principles of Managerial Accounting	3	ACCT 222 Managerial Accounting*	3
MATH 3710 Linear Algebra	3	MATH 246 Elementary Linear Algebra*	3
MATH 3151 Differential Equations	3	MATH 254 Differential Equations*	4

STATISTICS OPTION REQUIREMENTS (27 hours) with JCCC Equivalents

UCM Course	Hrs	JCCC Equivalents	Hrs
CS 1110 Computer Programming II	3	CS 236 Object-Oriented Programming Using C#*	4
CS 2300 Data Structures	3	CS 252 Basic Data Structures Using Python* OR CS 255 Basic Data Structures Using Java*	4
MATH 3710 Linear Algebra	3	MATH 246 Elementary Linear Algebra*	3

STATISTICS OPTION ELECTIVES (9 hours) with JCCC Equivalents

UCM Course	Hrs	JCCC Equivalents	Hrs
CS 2030 Python Programming II	3	CS 202 Concepts of Programming Algorithms using Python*	4
CS 4600 Database Theory and Applications	3	CIS 260 Database Management*	4
MATH 3151 Differential Equations	3	MATH 254 Differential Equations*	4

* JCCC course has a prerequisite or corequisite.