

Johnson County Community College
Transfer Program to the University of Kansas
College of Liberal Arts & Sciences
Mathematics, BA & BS
2025-2026 Catalog

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The <u>Associate of Arts, AA</u> at JCCC is a general transfer degree and partners well with the first two years of most bachelor degree programs. Students pursuing the AA may select courses that satisfy both the AA degree requirements and lower division requirements for a bachelor's degree at four-year institutions. The elective hours within the AA allow students to complete additional general education and lower division courses required for specific majors. The AA degree requires completion of 60 credit hours. Meeting with a <u>JCCC counselor</u> is strongly recommended for selection of appropriate courses.

- Separate programs lead to the B.A. in mathematics and the B.S. in mathematics. The B.A. has fewer mathematics course requirements and more general education requirements. The B.S. requires more mathematics courses, three courses in mathematics applications, and fewer general education courses. Students wishing to attend graduate school in mathematics or to pursue a career that makes substantial use of mathematics (as an actuary, for example) should get a B.S. in mathematics. Many students majoring in mathematics are interested in a liberal arts degree; such students may want to consider the B.A. in mathematics. Students who wish to teach mathematics in high school should pursue a B.A. or B.S. in mathematics while participating in the STEMTeach program.
- Minimum total hours for graduation is 120.
- A maximum of 75 hours may be transferred to KU from community colleges. Students should be aware that 45 junior/senior credit hours (300+) are required for completion of the bachelor's degree; 30 of those hours must be at KU; and community college courses do not transfer as junior/senior hours.
- Generally, it is okay to elect CR/NC for a KU Core requirement, but students should check with their advisor. A student cannot take a class Credit/No Credit for any major requirement.
- Students transferring to KU, that complete the General Education requirements required for the <u>Associate of Arts (AA)</u>, <u>Associate of Fine Arts (AFA)</u> or <u>Associate of Science (AS)</u> degree from JCCC will be considered to have satisfied KU's Core 34 general education curriculum.
- Students who transfer to KU, without completing the General Education requirements required for the <u>Associate of Arts (AA)</u>, <u>Associate of Fine Arts (AFA)</u> or <u>Associate of Science (AS)</u> degree will have courses evaluated on a course-by-course basis toward meeting KU requirements. To learn more about courses that satisfy KU Core 34 Requirements and KU CredTran.
- KU's Core 34 General Education Guide

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.

## **Mathematics, BA Requirements**

KU Courses	Hrs	JCCC Courses	Hrs		
KU Core 34 Requirements					
Core 34: English	6	See KU Core 34 General Education guide	6		
Core 34: Communications	3	See KU Core 34 General Education guide	3		
Core 34: Math & Statistics:					
MATH 125 Calculus I^	4	MATH 241 Calculus I*	5		
Core 34: Natural & Physical Sciences	4-5	See KU Core 34 General Education guide	4-5		
Core 34: Social and Behavior Science (Select two courses in two different disciplines – 6 hrs. total)	6	See KU Core 34 General Education guide	6		
Core 34: Arts and Humanities (Select two courses in two different disciplines – 6 hrs. total)	6	See KU Core 34 General Education guide	6		
Core 34: US Culture – Institutionally Designated	3	See KU Core 34 General Education guide	3		
Core 34: Global Culture - Institutionally Designated	3	See KU Core 34 General Education guide	3		
Program Requirements					
MATH 126 Calculus II (BA Quantitative Reasoning (QR))	4	MATH 242 Calculus II*	5		
MATH 127 Calculus III (Major Requirement)	4	MATH 243 Calculus III*	5		
MATH 290 Elementary Linear Algebra (Major Requirement)	2	MATH 246 Elementary Linear Algebra*	3		
Laboratory or Field Experience (BA Degree Requirement)		See table below on page 3			
Non-English Language (BA Degree Requirement)		See table below on page 3			

<sup>\*</sup> JCCC course has a prerequisite or corequisite.

NOTE: KU assumes students will have the equivalent of MATH 101 College Algebra (MATH 171 College Algebra at JCCC) completed prior to transfer. This course is also a pre-req for several math courses.

<sup>^</sup>This course is a **Required** major course and is also part of Core 34: Systemwide General Education. If this course is not taken to fulfill the Core 34:SGE requirement, it must be taken in place of elective hours.

**Laboratory or Field Experience** - Variable credits. One laboratory science (at least one credit hour) is required for the B.A. degree. Courses that fulfill this requirement will contain the code "LFE" in the course description.

KU Classes	Hrs	JCCC Classes	Hrs	KU Core 34
ASTR 191/196 Contemporary Astronomy/Lab	3/1	ASTR 122 Astronomy	4	NPS/NLEC/NLAB
BIOL 100/102 Principles of Biology/Lab	3/1	BIOL 121 Introductory Biology for Non-Majors	4	NPS/NLEC/NLAB
BIOL 150/154 Principles of Molecular and	3/1	BIOL 135 Principles of Cell & Molecular	4	NPS/NLEC/NLAB
Cellular Biology/Lab		Biology		
BIOL 152/BIOL NLAB Principles of Organismal	3/2	BIOL 150 Biology of Organisms*	5	NPS/NLEC/NLAB
Biology				
BIOL 200/203 Basic Microbiology/Lab	3/2	BIOL 230/231 Microbiology*/Lab*	3/2	NPS/NLEC/NLAB
EVRN 140/160 Global Environment I: The	3/1	EVRN 130/132 Environmental Science/Lab*	3/2	NPS/NLEC/NLAB
Discovery of Environmental Change/Lab				
GEOG 104/105 Introduction to Physical	3/2	GEOS 140/141 Physical Geography/Lab*	3/2	NPS/NLEC/NLAB
Geography/Lab				
PHSX 114 College Physics I	1-4	PHYS 130 College Physics I*	5	NPS/NLEC/NLAB
PHSX 211/216 General Physics I/Lab	4/1	PHYS 220 Engineering Physics I*	5	NPS/NLEC/NLAB
PHSX 212/236 General Physics II/Lab	3/1	PHYS 221 Engineering Physics II*	5	NPS/NLEC/NLAB
CHEM 110 Introductory Chemistry	5	CHEM 122 Principles of Chemistry*	5	NPS/NLEC/NLAB
CHEM 130 General Chemistry I	5	CHEM 124/125 General Chemistry I*/Lab*	4/1	NPS/NLEC/NLAB
CHEM 135 General Chemistry II	5	CHEM 131/132 General Chemistry II*/Lab*	4/1	NPS/NLEC/NLAB

Non-English Language — Variable credits. Students must demonstrate fourth semester proficiency in a single non-English language, or third semester proficiency in a first non-English language and first semester proficiency in a second non-English language. This requirement may be met through coursework or examination by the appropriate language department. (BA only) See the complete list of JCCC Foreign Language courses, click here. Check with JCCC Counselor for placement into appropriate courses and course offerings per semester at KU.

KU Classes	Hrs	JCCC Classes		KU Core 34
GERM 104 Elementary German I	5	FL 120 Elementary German I	5	GLBC
GERM 108 Elementary German II	5	FL 121 Elementary German II*	5	GLBC
SPAN 104 Elementary Spanish I	5	FL 130 Elementary Spanish I	5	АН
SPAN 108 Elementary Spanish II	5	FL 131 Elementary Spanish II*	5	АН
FREN 110 Elementary French I	5	FL 140 Elementary French I	5	AH
FREN 120 Elementary French II	5	FL 141 Elementary French II*	5	AH
CHIN 104 Elementary Chinese I	5	FL 165 Elementary Chinese I	5	N/A
CHIN 108 Elementary Chinese II	5	FL 166 Elementary Chinese II*	5	N/A
JPN 104 Elementary Japanese I	5	FL 170 Elementary Japanese I	5	N/A
JPN 108 Elementary Japanese II	5	FL 171 Elementary Japanese II*	5	N/A
JPN 204 Intermediate Japanese I	5	FL 182 Intermediate Japanese I*	5	N/A
JPN 208 Intermediate Japanese II	5	FL 183 Intermediate Japanese II*	5	N/A
GERM 201 Intermediate German I	3	FL 220 Intermediate German I*	3	GLBC
GERM 202 Intermediate German II	3	FL 221 Intermediate German II*	3	GLBC
SPAN 212 Intermediate Spanish I	3	FL 230 Intermediate Spanish I*	3	АН
SPAN 216 Intermediate Spanish II	3	FL 231 Intermediate Spanish II*	3	GLBC
FREN 230 Intermediate French I	3	FL 240 Intermediate French I*	3	GLBC
FREN 240 Intermediate French II	3	FL 241 Intermediate French II*	3	GLBC
No KU equivalent but counts as	3	FL 265 Intermediate Chinese I*	3	N/A
CHIN U Intermediate Chinese				
CHIN 204 Intermediate Chinese I	5	FL 266 Intermediate Chinese II*	3	N/A

## **Mathematics, BS Requirements**

KU Courses	Hrs	JCCC Courses	Hrs
KU Core 34 Requirements			
Core 34: English	6	See KU Core 34 General Education guide	6
Core 34: Communications	3	See KU Core 34 General Education guide	3
Core 34: Math & Statistics:			
MATH 125 Calculus I^	4	MATH 241 Calculus I*	5
Core 34: Natural & Physical Sciences	4-5	See KU Core 34 General Education guide	4-5
Core 34: Social and Behavior Science (Select two courses in two different disciplines – 6 hrs. total)	6	See KU Core 34 General Education guide	6
Core 34: Arts and Humanities (Select two courses in two different disciplines – 6 hrs. total)	6	See KU Core 34 General Education guide	6
Core 34: US Culture – Institutionally Designated	3	See KU Core 34 General Education guide	3
Core 34: Global Culture - Institutionally Designated	3	See KU Core 34 General Education guide	3
Program Requirements			
MATH 126 Calculus II	4	MATH 242 Calculus II*	5
MATH 127 Calculus III	4	MATH 243 Calculus III*	5
MATH 290 Elementary Linear Algebra	2	MATH 246 Elementary Linear Algebra*	3
MATH 220 Applied Differential Equations	3	MATH 254 Differential Equations*	4
EECS 168 Programming I (BS Requirement)	4	CS 200 Concepts of Programming Algorithms using C++* OR CS 202 Concepts of Programming Algorithms using Python* OR	4
Select one additional course in a natural science other	3-5	CS 205 Concepts of Programming Algorithms using Java*  See KU Core 34 General Education guide	3-5
than mathematics (BS Requirement)			

<sup>\*</sup> JCCC course has a prerequisite or corequisite.

NOTE: KU assumes students will have the equivalent of MATH 101 College Algebra (MATH 171 College Algebra at JCCC) completed prior to transfer. This course is also a pre-req for several math courses.

## **STEMTeach Requirements**

This program is designed to be completed along with an approved BS or BA degree to fulfill the requirements necessary for the STEMTeach KU Certificate in your desired area of licensure. The program is also designed to fulfill the course requirements necessary to gain state licensure eligibility to become a secondary teacher in Kansas, but completion of the program does not guarantee the student's licensure. Please consult with your major advisor for further information about meeting your degree/major requirements.

- 2.75 KU + Transfer Cumulative GPA
- 2.5 Content GPA

KU Courses	Hrs	JCCC Courses	Hrs
MATH 125 Calculus I	4	MATH 241 Calculus I*	5
MATH 126 Calculus II	4	MATH 242 Calculus II*	5
MATH 127 Calculus III	4	MATH 243 Calculus III*	5
MATH 290 Elementary Linear Algebra	2	MATH 246 Elementary Linear Algebra*	3
MATH 220 Applied Differential Equations	3	MATH 254 Differential Equations*	4
Additional requirements must be taken at KU			

<sup>\*</sup> JCCC course has a prerequisite or corequisite.

<sup>^</sup>This course is a **Required** major course and is also part of Core 34: Systemwide General Education. If this course is not taken to fulfill the Core 34:SGE requirement, it must be taken in place of elective hours.