

FOCUS AREA: MATHEMATICS

This focus area is intended for students who plan to major in Mathematics at a 4 year college or university, after completion of their associate's degree at St. Louis Community College. Your official degree that you will be pursuing at St. Louis Community College within this focus area is the **Associate in Science - General STEM Transfer Studies** (<http://catalog.stlcc.edu/programs/general-stem-transfer-studies-associate-science/>).

Missouri Civics Examination. Students entering college for the very first time in fall 2019 and who intend to complete an associate's degree must successfully complete a civics examination. **Information on who is eligible for a waiver can be found on the STLCC website** (<https://stlcc.edu/programs-academics/missouri-civics-exam.aspx>).

PLEASE NOTE: If you originally enrolled at STLCC prior to Fall 2024, you may need to view an **archived catalog** (<http://catalog.stlcc.edu/archived-catalogs/>) for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

Code	Title	Hours	Prerequisites	Milestones/Notes
First Year				
Fall				
ENG 101 or 102 or 103	College Composition I (MOTR ENGL 100) or College Composition II (MOTR ENGL 200) or Report Writing (MOTR ENGL 110)	3	Placement score or ENG 030 or ENG 070 with a grade of "C" or better or recommendation of department and Reading Proficiency or concurrent enrollment in RDG 079	
XXX xxx	Social & Behavioral Sciences: Civics Requirement (http://catalog.stlcc.edu/general-education/)	3		
MCE 100	Missouri Civics Examination	0		
MTH 210	Analytic Geometry and Calculus I	5	MTH 185 or (MTH 160 or MTH 160S and MTH 170) with grades of "C" or better or satisfactory score on placement test and Reading Proficiency	
Elective		4		See advisor for recommendation.
	Credit Hours	15		
Spring				
MTH 220	Analytic Geometry and Calculus II	5	MTH 210 with a grade of "C" or better and Reading Proficiency	
Elective		4		See advisor for recommendation.
Elective		4		See advisor for recommendation.
Elective		4		See advisor for recommendation.
	Credit Hours	17		
Second Year				
Fall				
MTH 230	Analytic Geometry and Calculus III	5	MTH 220 with a grade of "C" or better and Reading Proficiency	
XXX xxx	MOTR Natural Science with Lab (http://catalog.stlcc.edu/general-education/)	4		Science must be from two different disciplines. One course must be a lab.
Elective		3		See advisor for recommendation.
Elective		3		See advisor for recommendation.
	Credit Hours	15		
Spring				
XXX xxx	MOTR Natural Science (http://catalog.stlcc.edu/general-education/)	3		Science must be from two different disciplines. One course must be a lab.

MTH 240	Differential Equations	3	MTH 230 with a grade of "C" or better and Reading Proficiency	
MTH 215	Linear Algebra	3	MTH 210 with a grade of "C" or better and Reading Proficiency	
Elective		4		See advisor for recommendation.
Credit Hours		13		
Total Credit Hours		60		

*Click on the hyperlinked course number to view additional information about the course.

**Students completing a course that has been assigned a MOTR number may transfer that course to any public institution in Missouri. Those who complete CORE 42 requirements will have that verification on their transcript.

*** It is your responsibility to verify that the courses listed above will transfer to the four-year institution of your choice. Maximize your transfer credits/classes by meeting with an academic advisor.

This academic plan is a recommended sequence for this pathway. It serves as a **general guideline** to help you build a course schedule each term that supports your timely completion. The College has made every effort to ensure its accuracy. However, **the map is not a substitute for academic advisement—contact your advisor if you have any questions about your degree requirements.**

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Code	Title	Hours	Prerequisites	Milestones/Notes
First Year				
Fall				
ENG 101	College Composition I (MOTR ENGL 100)	3	Placement score or ENG 030 or ENG 070 with a grade of "C" or better or recommendation of department and Reading Proficiency or concurrent enrollment in RDG 079	This fulfills the written communications requirement.
MTH 210	Analytic Geometry and Calculus I	5	MTH 185 or (MTH 160 or MTH 160S and MTH 170) with grades of "C" or better or satisfactory score on placement test and Reading Proficiency	This fulfills the mathematics requirement.
COM 101 or 103 or 107 or 112 or 201	Oral Communication I (MOTR COMM 100) or Small Group Communication (MOTR COMM 125) or Public Speaking (MOTR COMM 110) or Argumentation and Debate (MOTR COMM 220) or Interpersonal Communication (MOTR COMM 120)	3	Concurrent enrollment in ENG 070 or Reading Proficiency	This fulfills part of the elective requirement.
PHL 103 or ENG 231	World Religions (MOTR RELG 100) or World Literature (MOTR LITR 200)	3	Reading Proficiency or concurrent enrollment in RDG 079	This fulfills part of the elective requirement and will satisfy the cultural diversity requirement.
	Credit Hours	14		
Spring				
ENG 102	College Composition II (MOTR ENGL 200)	3	ENG 101 with a minimum grade of "C" and Reading Proficiency	This fulfills part of the elective requirement.

ECO 151	Principles of Macroeconomics (MOTR ECON 101)	3	Concurrent enrollment in MTH 140S, or placement into MTH 140, MTH 160 or MTH 185, and Reading Proficiency	This fulfills part of the elective requirement.
MTH 220	Analytic Geometry and Calculus II	5	MTH 210 with a grade of "C" or better and Reading Proficiency	This fulfills part of the elective requirement.
MCE 100	Missouri Civics Examination	0		
HST 101 or 102 or 137 or 138 or PSC 101	United States History to 1865 (MOTR HIST 101) or United States History from 1865 to the Present (MOTR HIST 102) or African American History through Reconstruction (MOTR HIST 101AA) or African American History from Reconstruction to the Present (MOTR HIST 102AA) or Introduction to American Politics (MOTR POSC 101)	3	Reading Proficiency or concurrent enrollment in RDG 079	This fulfills the civics requirement.
	Credit Hours	14		
Second Year				
Fall				
MTH 230	Analytic Geometry and Calculus III	5	MTH 220 with a grade of "C" or better and Reading Proficiency	This fulfills part of the elective requirement.
IS 167	C++ Programming I	4	Reading Proficiency	This fulfills part of the elective requirement.
XXX xxx	MOTR Natural Science with Lab (http://catalog.stlcc.edu/general-education/)	4		Science must be from two different disciplines. One course must be a lab.
SPA 101 or FRE 101 or GER 101	Elementary Spanish I (MOTR LANG 103) ¹ or Elementary French I (MOTR LANG 101) or Elementary German I (MOTR LANG 105)	4	Reading Proficiency	This fulfills part of the elective requirement.
	Credit Hours	17		
Spring				
XXX xxx	MOTR Natural Science Elective (http://catalog.stlcc.edu/general-education/)	3		Science must be from different disciplines. One course must be a lab.
MTH 240	Differential Equations	3	MTH 230 with a grade of "C" or better and Reading Proficiency	This fulfills part of the elective requirement.
MTH 215	Linear Algebra	3	MTH 210 with a grade of "C" or better and Reading Proficiency	This fulfills part of the elective requirement.
SPA 102 or FRE 102 or GER 102	Elementary Spanish II (MOTR LANG 104) ¹ or Elementary French II (MOTR LANG 102) or Elementary German II (MOTR LANG 106)	4	SPA 101 with a minimum grade of "C" or 2 years of high school Spanish and Reading Proficiency	This fulfills part of the elective requirement.
XXX xxx	MOTR Social and Behavioral Sciences Elective (http://catalog.stlcc.edu/general-education/)	3		This fulfills part of the elective requirement. PSY, SOC, or other Social and Behavioral Sciences MOTR courses.
	Credit Hours	16		
	Total Credit Hours	61		

¹ Foreign Language courses are not required for the Bachelor in Science in Mathematics degree at University of Missouri - St. Louis (UMSL). If a student is interested in completing the Bachelor of Science in Mathematics, they can

choose other options from the approved CORE 42 humanities list to fulfill their humanities requirement.

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