

# GENERAL STEM TRANSFER STUDIES, ASSOCIATE IN SCIENCE

## Florissant Valley, Forest Park, Meramec, and Wildwood

St. Louis Community College's General STEM Transfer Studies, Associate in Science degree program is designed for students who plan to transfer to a four-year college or university and major in one of the traditional STEM areas (science, technology, engineering, math) with a heavy emphasis on undergraduate mathematics or science.

Students should become familiar with the requirements at the institution to which they plan to transfer and select their transfer courses carefully. Many bachelor's degree programs have very specific requirements for the freshman and sophomore years, and it is the transferring student's responsibility to ensure that courses will apply to the bachelor's degree. Students are encouraged to talk to an advisor to assist in planning a program of study or if they are considering a change in academic plans. Information about the requirements of many transfer institutions is available at [stlcc.edu/transfer](http://stlcc.edu/transfer).

**Cost of Attendance.** For more information on cost of attendance visit MoSCORES (<https://scorecard.mo.gov/Search/>).

**Program Career and Salary Information.** Pursuant to Missouri HB 1606 (2018), information regarding the number of credit hours, program length, employment rate, wage data, and graduates employed in careers related to their program of study at St. Louis Community College can be found at the following URL: <https://scorecard.mo.gov/scorecard/> ([https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E\\_i2lO96zEytILO-s5xaJCQ](https://www.google.com/url?q=https://scorecard.mo.gov/scorecard/&sa=D&ust=1555536894857000&usg=AFQjCNG1xf3E_i2lO96zEytILO-s5xaJCQ)). Search using School / Program "St. Louis Community College" and choose the degree or credential type of interest.

The following limitations to the data apply: Information provided is based on the most recent cohorts available. Typically, most recent cohorts for wage and completion data are six years prior to the current academic year. Time to complete a program of study varies depending on the number of credit hours students earn per semester.

**Interested in this program?** Start the enrollment process by visiting the Apply to STLCC (<https://www.stlcc.edu/admissions/apply-to-stlcc/>) page.

## At the completion of the program, students are expected to:

1. demonstrate analytic thinking and problem solving skills in mathematics and the sciences.

2. communicate mathematically using verbal, graphical, numerical, and symbolic representations.
3. demonstrate a general knowledge of biological, chemical, computer science, physical, mathematics, or engineering disciplines.
4. apply quantitative methods to science, engineering, or computer science.
5. use technology in mathematical and scientific problem solving.

**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 our website: <https://stlcc.edu/programs-academics/missouri-civics-exam.aspx>.

## Program of Study

Code	Title	Credit Hours
<b>General Education</b>		
MTH 210	Analytic Geometry and Calculus I	5
ENG 101	College Composition I (MOTR ENGL 100)	3
or ENG 102	College Composition II (MOTR ENGL 200)	
or ENG 103	Report Writing (MOTR ENGL 110)	
Natural Science	Students must complete seven (7) credit hours.	7
XXX xxx	Social & Behavioral Sciences: Civics Requirement	3
<b>Electives</b>		
Electives in science, technology, engineering, and math are recommended to fulfill requirements of a 4-yr program. Elective credits within the General STEM AS degree allow the student to begin working toward an academic major by selecting courses within in a STEM discipline or to explore various STEM subjects at an introductory level. Students should consult their transfer institution and/or work with an advisor for best course options.		42
Total Credit Hours		60

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Code	Title	Hours	Prerequisites	Milestones/Notes
<b>First Year</b>				
<b>Fall</b>				
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.	
Elective		4		

BIO 140	Principles of Biology I (MOTR BIOL 150L)	5	CHM 105 and Reading Proficiency.	
CHM 105	General Chemistry I (MOTR CHEM 150L)	5	MTH 140 (or at least one and a half years of high school algebra) and CHM 101 with a minimum grade of "C" or one year of high school chemistry, and Reading Proficiency.	
	Credit Hours	17		
<b>Spring</b>				
Elective		4		
BIO 141	Principles of Biology II	4	BIO 140 with a grade of C or better and Reading Proficiency.	
CHM 106	General Chemistry II	5	CHM 105 and (MTH 160 or MTH 160A or MTH 160B or MTH 160C) with minimum grades of "C" or test in MTH 170 or higher on the Math placement test and Reading Proficiency.	
	Credit Hours	13		
<b>Second Year</b>				
<b>Fall</b>				
Elective		4		
Social & Behavioral Science: Civics Requirement		3		
PHY 111	College Physics I (MOTR PHYS 150L)	4	MTH 144 or prior or concurrent enrollment in MTH 160, MTH 160A, MTH 160B or MTH 160C and Reading Proficiency.	
CHM 206	Organic Chemistry Lecture I	3	CHM 106 with a grade of "C" or better and Reading Proficiency.	
CHM 210	Organic Chemistry Lab I	2	concurrent or prior enrollment of CHM 206 with a grade of "C" or better and Reading Proficiency.	
	Credit Hours	16		
<b>Spring</b>				
MTH 210	Analytic Geometry and Calculus I	5	MTH 185 or (MTH 160, MTH 160A, MTH 160B or MTH 160C and MTH 170) with grades of "C" or better or satisfactory score on placement test and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	
Elective		4		
CHM 207	Organic Chemistry Lecture II	3	CHM 206 with a grade of "C" or better and Reading Proficiency.	
CHM 211	Organic Chemistry Lab II	2	Concurrent or prior enrollment in CHM 207 with a minimum grade of "C" and CHM 210 with a minimum grade of "C" and Reading Proficiency.	
	Credit Hours	14		
	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.

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Social & Behavioral Science: Civics Requirement		3		
MTH 210	Analytic Geometry and Calculus I	5	MTH 185 or (MTH 160, MTH 160A, MTH 160B or MTH 160C and MTH 170) with grades of "C" or better or satisfactory score on placement test and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	
CHM 105	General Chemistry I (MOTR CHEM 150L)	5	MTH 140 (or at least one and a half years of high school algebra) and CHM 101 with a minimum grade of "C" or one year of high school chemistry, and Reading Proficiency.	
	Credit Hours	16		
<b>Spring</b>				
Elective		4		Recommend MTH 220
Elective		5		
CHM 106	General Chemistry II	5	CHM 105 and (MTH 160 or MTH 160A or MTH 160B or MTH 160C) with minimum grades of "C" or test in MTH 170 or higher on the Math placement test and Reading Proficiency.	
	Credit Hours	14		
<b>Second Year</b>				
<b>Fall</b>				
Elective		5		Recommend MTH 230
Elective		5		
CHM 206	Organic Chemistry Lecture I	3	CHM 106 with a grade of "C" or better and Reading Proficiency.	

CHM 210	Organic Chemistry Lab I	2	concurrent or prior enrollment of CHM 206 with a grade of "C" or better and Reading Proficiency.	
	Credit Hours	15		
<b>Spring</b>				
	Elective	5		
	Elective	5		
CHM 207	Organic Chemistry Lecture II	3	CHM 206 with a grade of "C" or better and Reading Proficiency.	Apply for graduation
CHM 211	Organic Chemistry Lab II	2	Concurrent or prior enrollment in CHM 207 with a minimum grade of "C" and CHM 210 with a minimum grade of "C" and Reading Proficiency.	
	Credit Hours	15		
	Total Credit Hours	60		

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MTH 210	Analytic Geometry and Calculus I	5	MTH 185 or (MTH 160, MTH 160A, MTH 160B or MTH 160C and MTH 170) with grades of "C" or better or satisfactory score on placement test and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	
IS 167	C++ Programming I	4	Reading Proficiency.	
	Elective	4		
	Credit Hours	16		
<b>Spring</b>				
	Elective	4		Recommend MTH 220
	Elective	4		

Elective		4	Recommend IS 267
	Credit Hours	12	
<b>Second Year</b>			
<b>Fall</b>			
Elective		5	Recommend MTH 230 or MTH 212
Elective		5	
Science Elective		4	
Elective		4	
	Credit Hours	18	
<b>Spring</b>			
Science Elective		3	
Elective		4	Apply for graduation
Elective		4	
Social & Behavioral Science: Civics Requirement		3	
	Credit Hours	14	
	Total Credit Hours	60	

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	Social & Behavioral Science: Civics Requirement	3		
MTH 210	Analytic Geometry and Calculus I	5	MTH 185 or (MTH 160, MTH 160A, MTH 160B or MTH 160C and MTH 170) with grades of "C" or better or satisfactory score on placement test and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	
Elective		4		
	Credit Hours	15		

<b>Spring</b>				
MTH 220	Analytic Geometry and Calculus II	5	MTH 210 with a grade of "C" or better and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	
Elective		4		
Elective		4		
Elective		4		
	Credit Hours	17		
<b>Second Year</b>				
<b>Fall</b>				
MTH 230	Analytic Geometry and Calculus III	5	MTH 220 with a grade of "C" or better and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	
Science Elective		4		
Elective		3		
Elective		3		
	Credit Hours	15		
<b>Spring</b>				
Science Elective		3		
MTH 240	Differential Equations	3	MTH 230 with a grade of "C" or better and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	Apply for graduation
MTH 215	Linear Algebra	3	MTH 210 with a grade of "C" or better and Reading Proficiency. All prerequisite courses must have been completed within the last 3 years.	
Elective		4		
	Credit Hours	13		
	Total Credit Hours	60		

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