

# ENGINEERING SCIENCE: AS

## Full-Time Academic Plan

**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 Spring 2024, you may need to view an archived catalog (<https://www.stlcc.edu/programs-academics/course-catalog/>) for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

Code	Title	Hours	Prerequisites	Milestones/Notes
<b>First Year</b>				
<b>Fall</b>				
MTH 210	Analytic Geometry and Calculus I (or higher)	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	
CHM 105	General Chemistry I (MOTR CHEM 150L)	5	MTH 140 (or MTH 140S 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	
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	
ESC 100	Engineering Computer Applications and Design	3	MTH 140 (or MTH 140S) or higher with a minimum grade of "C" and Reading Proficiency	
	<b>Credit Hours</b>	<b>16</b>		
<b>Spring</b>				
MTH 220	Analytic Geometry and Calculus II	5	MTH 210 with a grade of "C" or better and Reading Proficiency	
PHY 122	Engineering Physics I (MOTR PHYS 200L)	5	MTH 210 with a minimum grade of "C" and Reading Proficiency	
ESC 101	Scientific Computer Programming	3	MTH 160 (or MTH 160S) or higher with a minimum grade of "C" and Reading Proficiency	
XXX xxx	Social & Behavioral Sciences: Civics Requirement ( <a href="http://catalog.stlcc.edu/general-education/">http://catalog.stlcc.edu/general-education/</a> )	3		
	<b>Credit Hours</b>	<b>16</b>		
<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	
PHY 223	Engineering Physics II	5	PHY 122 and MTH 220 with a minimum grades of "C" and Reading Proficiency	
ESC 203	Engineering Statics	3	PHY 122 with a minimum grade of "C" and Reading Proficiency	

ESC 200	Engineering Circuits I	4	PHY 122 with a minimum grade of "C", concurrent or prior enrollment in MTH 230 with a minimum grade of "C", and Reading Proficiency	
	<b>Credit Hours</b>	<b>17</b>		
<b>Spring</b>				
MTH 240	Differential Equations	3	MTH 230 with a grade of "C" or better and Reading Proficiency	
Engineering Science Elective		3		Choose from: ESC 204, ESC 205, ESC 206, ESC 207, EGR 100, ME 151, ME 249, CHM 106, ECO 151, ECO 152, PSY 200, PHL 103, ANT 102, or any other ESC course not already required for the program.
Engineering Science Elective		3		Choose from: ESC 204, ESC 205, ESC 206, ESC 207, EGR 100, ME 151, ME 249, CHM 106, ECO 151, ECO 152, PSY 200, PHL 103, ANT 102, or any other ESC course not already required for the program.
Engineering Science Elective		1-5		Choose from: ESC 204, ESC 205, ESC 206, ESC 207, EGR 100, ME 151, ME 249, CHM 106, ECO 151, ECO 152, PSY 200, PHL 103, ANT 102, or any other ESC course not already required for the program.
ENG 102 or 103 or COM 101 or COM 107	College Composition II (MOTR ENGL 200) or Report Writing (MOTR ENGL 110) or Oral Communication I (MOTR COMM 100) or Public Speaking (MOTR COMM 110)	3	ENG 101 with a minimum grade of "C" and Reading Proficiency	Check with transfer institution for recommendation.
	<b>Credit Hours</b>	<b>13-17</b>		
	<b>Total Credit Hours</b>	<b>62-66</b>		

\*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.