

# ENGINEERING TECHNOLOGY: AAS

Associate in Applied Science | 60 credit hours minimum

**Area of Interest: Advanced Manufacturing, Industrial Occupations, and Transportation**

Program Website (<https://stlcc.edu/programs-academics/pathways/s-t-e-m/engineering-technology/>)

Academic Advising (<https://stlcc.edu/admissions/advising/>)

## Program Description:

The Engineering Technology Associate in Applied Science program prepares students for entry level positions as engineering technologists through classroom instruction, laboratory skill practice, and/or work experience. Students will gain hands on knowledge in electronics, blueprint reading, measurement techniques, and prototype development.

Persons interested in this program should possess a stable temperament, manual dexterity, physical stamina, and the ability to integrate and prioritize a variety of activities. Engineering technicians jobs are available in a wide variety areas including engineering, manufacturing, medical, repair, maintenance, and other fields. Course work can be focused on biomedical equipment repair, computer aided design, manufacturing, electronics repair, robotics, or other areas.

**Locations.** This program is offered in its entirety at Florissant Valley.

**Related Programs.** The Engineering Department offers certificates in the following areas:

Computer Aided Design (CAD), Certificate of Specialization (<http://catalog.stlcc.edu/programs/computer-aided-design-certificate-specialization/>)

Biomedical Electronics Technology, Certificate of Proficiency (<http://catalog.stlcc.edu/programs/biomedical-electronics-technology-certificate-specialization/>)

Precision Machining Technology, Certificate of Specialization (<http://catalog.stlcc.edu/programs/precision-machining-technology-certificate-specialization/>)

**Transfer/Articulation Information.** This is a 2-year terminal degree. Several courses are transferrable to other institutions. Students should check with the receiving institution to determine credit transferability.

Students who are interested in pursuing courses leading to engineering bachelor's degree programs should follow the courses listed in the Engineering Science, Associate in Science (<http://catalog.stlcc.edu/programs/engineering-science-as/>) or the General STEM Transfer Studies, Associate in Science (<http://catalog.stlcc.edu/programs/general-stem-transfer-studies-associate-science/>) degrees.

**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. communicate technical issues through written documents and oral communications.
2. troubleshoot basic Direct Current (DC) and Alternating Current (AC) circuits.
3. interpret engineering drawings and schematics.
4. solve engineering problems at the technician level.
5. apply measurement techniques to mechanical and electrical problems.
6. use equipment properly while meeting safety and environmental concerns in the workplace.

**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>).

## Program of Study

Code	Title	Credit Hours
<b>General Education</b>		
ENG 101	College Composition I (MOTR ENGL 100)	3
MTH 140	Intermediate Algebra (or MTH 140S or higher)	3
BIO 109	Human Biology (MOTR LIFS 100)	3
or PSI 101	Physical Science (MOTR PHYS 110)	
COM 101	Oral Communication I (MOTR COMM 100)	3
or COM 107	Public Speaking (MOTR COMM 110)	
or COM 201	Interpersonal Communication (MOTR COMM 120)	
XXX xxx	Social & Behavioral Sciences: Civics Requirement ( <a href="http://catalog.stlcc.edu/general-education/">http://catalog.stlcc.edu/general-education/</a> )	3

### Program Requirements

GE 131	Engineering Technology Orientation	1
GE 101	Technical Computer Applications	3
GE 135	Blueprint Reading for Engineering Technicians	2
EE 134	Electric Circuits	6
GE 240	Product Design and Fabrication	4

**Elective hours** **29**

Elective hours are to be taken from BE, CE, EE, EGR, ESC, GE, ME, QC prefixes or IT 101, IT 201 based around the desired Engineering Technician specialization

**Total Credit Hours**

**60**

## 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 Fall 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 140	Intermediate Algebra (or MTH 140S or higher)	3	Satisfactory placement and Reading Proficiency	
GE 101	Technical Computer Applications	3	Reading Proficiency	
GE 131	Engineering Technology Orientation	1	Reading Proficiency	
GE 135	Blueprint Reading for Engineering Technicians	2	Reading Proficiency	
EE 134	Electric Circuits	6	MTH 140 (or MTH 140S) with a minimum grade of "C" or equivalent placement test scores or department approval and Reading Proficiency	
	<b>Credit Hours</b>	<b>15</b>		
<b>Spring</b>				
XXX xxx	Social & Behavioral Sciences: Civics Requirement ( <a href="http://catalog.stlcc.edu/general-education/">http://catalog.stlcc.edu/general-education/</a> )	3		
PSI 101 or BIO 109	Physical Science (MOTR PHYS 110) or Human Biology (MOTR LIFS 100)	3	MTH 108 or MTH 140S with a minimum grade of "C", or placement into MTH 140 or higher, 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	
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>15</b>		
<b>Second Year</b>				
<b>Fall</b>				
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.

Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>15</b>		
<b>Spring</b>				
GE 240	Product Design and Fabrication	4	ME 151 or EE 134 or EGR 100 or ME 111 with minimum grades of "C" or department approval, and Reading Proficiency	Apply for graduation.
COM 101 or 107 or 201	Oral Communication I (MOTR COMM 100) or Public Speaking (MOTR COMM 110) or Interpersonal Communication (MOTR COMM 120)	3	Concurrent enrollment in ENG 070 or Reading Proficiency	
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		2		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>15</b>		
	<b>Total Credit Hours</b>	<b>60</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.

## Part-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 Fall 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 140	Intermediate Algebra (or MTH 140S or higher)	3	Satisfactory placement and Reading Proficiency	
GE 101	Technical Computer Applications	3	Reading Proficiency	
GE 131	Engineering Technology Orientation	1	Reading Proficiency	
	<b>Credit Hours</b>	<b>7</b>		
<b>Spring</b>				
EE 134	Electric Circuits	6	MTH 140 (or MTH 140S) with a minimum grade of "C" or equivalent placement test scores or department approval and Reading Proficiency	
	<b>Credit Hours</b>	<b>6</b>		

<b>Summer</b>				
PSI 101 or BIO 109	Physical Science (MOTR PHYS 110) or Human Biology (MOTR LIFS 100)	3	MTH 108 or MTH 140S with a minimum grade of "C", or placement into MTH 140 or higher, and Reading Proficiency	
	<b>Credit Hours</b>	<b>3</b>		
<b>Second Year</b>				
<b>Fall</b>				
GE 135	Blueprint Reading for Engineering Technicians	2	Reading Proficiency	
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>8</b>		
<b>Spring</b>				
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>6</b>		
<b>Summer</b>				
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	
	<b>Credit Hours</b>	<b>3</b>		
<b>Third Year</b>				
<b>Fall</b>				
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>6</b>		
<b>Spring</b>				
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>6</b>		
<b>Summer</b>				
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>3</b>		
<b>Fourth Year</b>				
<b>Fall</b>				
Engineering Technology Elective		3		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.

Engineering Technology Elective		2		Choose from BE, CE, EE, EGR, ESC, GE, ME, or QC prefixes, or IT 101, IT 201.
	<b>Credit Hours</b>	<b>5</b>		
<b>Spring</b>				
GE 240	Product Design and Fabrication	4	ME 151 or EE 134 or EGR 100 or ME 111 with minimum grades of "C" or department approval, and Reading Proficiency	Apply for graduation.
COM 101 or 107 or 201	Oral Communication I (MOTR COMM 100) or Public Speaking (MOTR COMM 110) or Interpersonal Communication (MOTR COMM 120)	3	Concurrent enrollment in ENG 070 or Reading Proficiency	
	<b>Credit Hours</b>	<b>7</b>		
	<b>Total Credit Hours</b>	<b>60</b>		

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

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