

# AUTOMOTIVE SERVICE: CS

Certificate of Specialization | 15 credit hours minimum

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

**Program Website** (<https://stlcc.edu/programs-academics/pathways/a-m-i-o-t/automotive-technology/>)

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

## Program Description:

The Automotive Service Certificate of Specialization covers the essential skills needed to perform typical services in the Automotive Service Excellence (ASE) areas of brakes, electrical, engine mechanical, and engine performance. This program will prepare students for entry-level employment based on the four topics from each of the four courses. These courses will focus on testing, diagnosing, and servicing of the following:

- Electrical: Starting and charging systems, batteries, and electrical circuits
- Brakes: Disc, drum, hydraulic, and electronic brake systems
- Engine mechanical: Complete evaluation of an engine including the disassembly, inspection, and re-assembly
- Powertrain: Identification of engine management sensors, interpreting scan tool data, and servicing fuel systems

**Locations.** This program is offered in its entirety at Forest Park.

**Related Programs.** The Automotive Technology Department offers an associate and certificates in the following areas:

**Automotive Technology, Associate in Applied Science** (<http://catalog.stlcc.edu/programs/automotive-technology-aas/>)

**Automotive Technology, Certificate of Proficiency** (<http://catalog.stlcc.edu/programs/automotive-technology-certificate-proficiency/>)

**Automotive Vehicle Inspection and Light Maintenance, Certificate of Specialization** (<http://catalog.stlcc.edu/programs/automotive-vehicle-inspection-light-maintenance-certificate-specialization/>)

**Financial Aid.** This Certificate of Specialization is not eligible for financial aid.

**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. diagnose engine mechanical-related customer concerns.
2. service a hydraulically controlled disc/drum brake system.
3. diagnose electronic brake control system failures.
4. measure internal engine components for excessive clearance and wear.
5. assess the condition of an internal engine using common testing procedures.
6. test the fuel delivery of an automobile.
7. diagnose customer concerns related to engine performance.

**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>).

Code	Title	Credit Hours
<b>Program Requirements</b>		
AUT 101	Automotive Fundamentals and Service Information	3
AUT 110	Automotive Electrical Principles	3
AUT 112	Automotive Brake Systems Service and Diagnosis	3
AUT 114	Automotive Engine Repair and Diagnosis	3
AUT 116	Automotive Powertrain Controls	3
<b>Total Credit Hours</b>		<b>15</b>

## Full-Time Academic Plan (Day Program)

**PLEASE NOTE:** If you originally enrolled at STLCC prior to Fall 2025, 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
<b>First Year</b>				
<b>Fall</b>				
AUT 101	Automotive Fundamentals and Service Information	3	Reading Proficiency	Exploratory Course, Gateway Course, Critical Course
AUT 110	Automotive Electrical Principles	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	
AUT 112	Automotive Brake Systems Service and Diagnosis	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	
AUT 114	Automotive Engine Repair and Diagnosis	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	
AUT 116	Automotive Powertrain Controls	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	Apply for graduation.
	<b>Credit Hours</b>	<b>15</b>		
	<b>Total Credit Hours</b>	<b>15</b>		

**Critical Courses:** Critical courses are most important to a student's declared major and most strongly predict later success in the major. A critical course requires a minimal grade to progress to higher-level courses.

**Gateway Courses:** Gateway courses are courses in many career pathways that must be completed before progression in higher-level courses. These may be the same as critical and/or exploratory courses.

**Exploratory Courses:** Exploratory courses are first-semester courses that introduce the program and career field.

\*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 (Evening Program)

**catalogs/)** for your correct program requirements. Please speak with an advisor or the program coordinator for more information.

**PLEASE NOTE:** If you originally enrolled at STLCC prior to Fall 2025, you may need to view an **archived catalog** (<http://catalog.stlcc.edu/archived->

Code	Title	Hours	Prerequisites	Milestones/Notes
<b>First Year</b>				
<b>Fall</b>				
AUT 101	Automotive Fundamentals and Service Information	3	Reading Proficiency	Exploratory Course, Gateway Course, Critical Course
AUT 110	Automotive Electrical Principles	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	
AUT 112	Automotive Brake Systems Service and Diagnosis	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	
	<b>Credit Hours</b>	<b>9</b>		

Spring				
AUT 114	Automotive Engine Repair and Diagnosis	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	Apply for graduation.
AUT 116	Automotive Powertrain Controls	3	Concurrent or prior enrollment in AUT 101 with a minimum grade of "C" and Reading Proficiency	
	<b>Credit Hours</b>	<b>6</b>		
	<b>Total Credit Hours</b>	<b>15</b>		

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