

BASIC AUTOMOTIVE TECHNOLOGY (CERTIFICATE OF PROFICIENCY)

(42 credits)

Program Description

When you encounter a problem, do you see it as a challenge? Do you want to work with your hands in an industry that's essential to everyday life?

When you study Automotive Technology at SPSCC, you'll receive both formal training and real-world experience diagnosing and repairing automotive problems. Take classes in a modern, industry-standard shop facility that has been certified by the National Institute for Automotive Service Excellence (ASE). We also offer an in-depth curriculum designed to prepare you to reach success in all eight ASE areas.

The Automotive Technology Program curriculum is certified with the National Automotive Technician Education Foundation (NATEF) and is designed to provide entry-level skills in the automotive mechanics field. Students learn to diagnose automotive problems in a practical hands-on shop environment, using state-of-the-art diagnostic and repair equipment. Upon completion of this program students will be qualified for a broad range of employment opportunities.

Career Opportunities

The automotive industry employs more than 17,800 persons in the state of Washington. There is a shortage of qualified journey-level workers. Studies show many employers are reluctant to hire trainees without on-the-job or live shop experience. Job prospects are best in high population centers. Some mechanics specialize in one aspect of repair work while others become technicians or general mechanics. Car dealers, garages, service stations, industrial plants, and public agencies are potential employers.

- Tune-up Technician
- Entry-level Electrical Technician.

Program Information

Length of Program

The beginning certificate can be completed in a minimum of three quarters leading to the advanced certificate for an additional three quarters.

Special Program Note

Students with previous automotive background or completion of high school automotive training can receive advanced placement credit for AUTO 100 Introduction to Automotive Technology and enroll directly into AUTO 141 Chassis Systems / AUTO 142 Electrical/Electronic Systems / AUTO 143 Engine Repair. Students who have had no previous automotive

training must enroll in AUTO 100 Introduction to Automotive Technology or have instructor's permission. Students may enroll in AUTO 100 Introduction to Automotive Technology concurrently.

The program is certified by the Automotive Service Excellence (ASE) Education Foundation. For the technician in the field, single classes may be taken for update upon instructor approval. For information during summer quarter please contact the Counseling/Career Center, (360) 596-5261.

Program Costs

The required set of first-year professional grade tools will typically cost anywhere between \$2,000 to \$10,000 depending on quality and brand from the vendor. Second-year purchases of professional-grade tools are highly recommended before graduation and can cost between \$3,000 and \$4,200 depending on quality and brand from the vendor. Books will cost approximately \$300 for the two-year course.

Advanced Placement of Credit

Students with a previous automotive background or completion of high school automotive training can receive advanced placement credit for AUTO 100 and enroll directly into AUTO 141/142/143 depending on the quarter the student is starting. Students with no previous automotive training must enroll in AUTO 100 or have the instructor's permission. Students may enroll in AUTO 100 concurrently.

For the technician in the field, single classes may be taken for update upon instructor approval. For information during summer quarter, please contact the the Advising, Career & Transfer Center at 360-596-5261.

Accreditation

The Automotive Technology Program curriculum is certified by the National Institute for Automotive Service Excellence (ASE). They are also certified through Boeing's Pre-Employment Training (BPET) program where students are eligible to bypass the interview process when applying for certain manufacturing jobs at Boeing.

Outcomes

South Puget Sound Community College believes that all students need to develop a broad range of abilities that will not only make them more effective in their professional pursuits but will enhance their capacity to relate well to others in their daily lives.

At the completion of the Automotive Technology Program, the successful student will be able to:

- Demonstrate the ability to identify, analyze and provide diagnostic solutions to automotive repair projects
- Apply effective communication skills as a team member by properly completing work order summaries containing the three "C's" (complaint, cause, correction)
- Interpret and apply mathematical equations used in the automotive industry
- Apply the appropriate legal repair standards and technical practices while diagnosing and repairing customer-based cars
- Critique their own ability to work effectively and collaboratively in multi-disciplinary lab teams Be proficient in the safe and proper use of automotive hand tools
- Demonstrate the skills and knowledge in the use of modern shop diagnostic and repair equipment
- Demonstrate the hands-on competency in the following NATEF task areas; automatic transmission/transaxle, manual drive train, steering

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and suspension systems, brakes, electrical/electronic systems, heating and air conditioning, engine performance and engine repair

- Research applicable vehicle information using computer based service manuals
- Demonstrate the ability to write a vehicle work order summary containing the three "C" (complaint, cause, correction)
- Demonstrate the entry-level knowledge necessary to take the ASE (Automotive Service Excellence) tests

The SPSCC college-wide abilities are embedded into each program:

- Effective Communication
- Information Literacy
- Analytical Reasoning
- Multicultural Awareness
- Social Responsibility

Courses by Quarter

A Certificate of Proficiency will be awarded upon successful completion of the courses listed below.

Courses by Quarter

Code	Title	Credits
Quarter 1		
Transition Studies		
Quarter 2		
CCS 101	Pathways to Success	3
Quarter 3		
AUTO 141	Chassis Systems	13
Quarter 4		
AUTO 142	Electrical/Electronic Systems	13
Quarter 5		
AUTO 143	Engine Repair	13

All AUTO courses are **only** taught in the evenings.

AUTO 100 or instructor permission is a pre-requisite for AUTO 141, 142, and 143.

Pathway Maps

South Puget Sound Community College has provided pathways and associated recommended courses for ease of student selection based upon a student's career interest. Please review the pathway maps for required and recommended courses.

Basic Auto Cert. courses are located in the bold box below.

Auto Cert

- CCS 101, AUTO 141, AUTO 142, and AUTO 143

Automotive Technology Pathway Map
Associate in Applied Science, 101 Credits
Certificate, 42 credits***

Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 5	Qtr. 6	Qtr. 7	Qtr. 8
Transition Studies	CCS 101 (3cr)*** Pathways to success	AUTO 141 (13cr)*** Chassis Systems fall only	AUTO 142 (13cr)*** Electrical/Electronic Systems winter only	AUTO 143 (13cr)*** Engine Repair spring only	AUTO 244 (13cr) Engine Performance fall only	AUTO 241 (13cr) Automotive Diagnostics winter only	AUTO 242 (10cr) Automotive Transmissions spring only
	MATH 101 (5cr) Technical Mathematics I	ENGL 090 (2cr) Integrated Reading and Writing ENGL 095 (3cr) Integrated Reading and Writing	ENGL 094 (2cr) Transitional English Composition ENGL 101 (5cr) English Composition I		Choose One (3cr): Human Relations / Diversity, recommended KINS 150 (3cr) Intro to Adaptive Physical Activity, Diversity PSYC 146 (3cr) Psychology of Human Relations, Diversity CMST 243 (3cr) Interpersonal Communication, Diversity CMST 240 (3cr) Interpersonal Communication, Diversity HUM 112 (3cr) Multicultural America, Diversity		AUTO 243 (5cr) Heating and Air Conditioning spring only
	AUTO 100 (5cr) Introduction to Automotive Technology fall, winter, spring						

NOTE1: After completing AUTO 100, students can begin AUTO in fall, winter, or spring -- starting with whichever AUTO 141, 142, or 143 course is offered at the time of entry.

NOTE2: All AUTO courses are **only** taught in the evenings.

*** AUTO Cert = 42 credits:

- CCS 101 (3cr), AUTO 141 (13cr), AUTO 142 (13cr), and AUTO 143 (13cr)
- AUTO 100 or instructor permission is a pre-requisite for AUTO 141, 142, and 143.

11.4.2023 update