

Undergraduate Certificate in Automotive Technology

The Undergraduate Certificate in Automotive Technology provides students with the technical education and training necessary to be successful in today's automotive industry. Students will study the various vehicle systems, including electrical and electronics, computerized engine controls, and the numerous mechanical components that make up today's complex vehicles.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificate Programs (<http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/>).

Advising

Students should consult the ADT faculty for assistance in curriculum planning toward the undergraduate certificate.

Computer Competency Requirement

The Automotive Technology certificate requires demonstrated computer competency. Computer competency may be demonstrated in any of the following ways:

- A 3-credit course in a computer language or an introductory course in data processing or microcomputers.
- Work-related experience verifying computer competency as approved by the faculty advisor.
- Self-initiated computer competency as approved by the faculty advisor.

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (<http://catalog.uaa.alaska.edu/undergraduateprograms/certificaterequirements/>).
- Complete the following major requirements:

Code	Title	Credits
First Semester		
ADT A102	Introduction to Automotive Technology	3
ADT A121	Basic Electrical Systems	3
ADT A131	Auto Electrical II	3
ADT A150	Brake Systems	4
ADT A195	Automotive Practicum I	2
Second Semester		
ADT A122	Engine Theory and Diagnosis	3
ADT A160	Manual Drive Trains and Axles	4
ADT A162	Suspension and Alignment	4
ADT A195	Automotive Practicum I	2

Third Semester		
ADT A140	Automotive Engine Repair	3
ADT A225	Mobile Heating, Ventilation and Air Conditioning Systems	3
ADT A227	Auto Electrical III	3
ADT A195	Automotive Practicum I	2
Fourth Semester		
ADT A202	Auto Fuel and Emissions Systems	4
ADT A222	Automotive Engine Performance	3
ADT A260	Electronic and Automatic Transmissions	3
or ADT A295	Automotive Practicum II	
Total		49

A total of 49 credits is required for the certificate.

Program Student Learning Outcomes

At the completion of this undergraduate certificate program, students are able to:

- Demonstrate technical knowledge and skills necessary for success in the automotive maintenance and repair industry.
- Demonstrate academic proficiency necessary to pass national examinations.
- Demonstrate proficiency in performing occupationally related tasks in a professional setting.
- Integrate knowledge from diverse areas to develop effective diagnostic and repair strategies involving complex systems.
- Demonstrate effective oral and written communication skills necessary for success in the workplace.