AUTOMOTIVE TECHNOLOGY (ATC)

Advanced Technical Certificate

Career-Technical Program
Interest Areas:
Manufacturing and Trades

This program is designed to prepare students for employment as entry-level technicians in the automotive repair industry. All ASE (Automotive Service Excellence) areas will be taught through the use of lecture, mock-ups, and customer vehicles. Successful completion of each semester or permission of the instructor is required for admission to the next semester.

Due to the complexity of cars today, the industry requires a high degree of reading and comprehension skills. Placement in specific English and courses math is determined by the college assessment test. The North Idaho College Automotive Technology program is NATEF certified and is taught by ASE Master Technicians.

Current industry professionals may enroll in individual courses on a space-available basis and with the instructor's permission.

Contact Information:
Trades & Industry Division
Parker Technical Education Center
7064 West Lancaster Road
Rathdrum, ID 83858
Phone: (208) 769-3448
Program Website (https://www.nic.edu/autotech/)

Program Requirements

Course	Title	Credits
Semester 1		
AUTO-102	Automotive Technology Fundamentals and Safety	2
AUTO-111	Manual Drive Trains and Axles	2
AUTO-118	Electrical Systems	3
AUTO-119L	Automotive Lab I	7
Select one of the following:		3-5
GEM 3 - A.A.S. Mathematical Ways of Knowing		
MCTE-101	Technical Mathematics	
MCTE-104	Technical Mathematics for Automotive Technology and Diesel	
	Credits	**17-19**
Semester 2		
AUTO-124	Brakes, Suspension and Steering	2
AUTO-127	Engine Repair	3
AUTO-129L	Automotive Lab II	7
ENGL-101 or ENGL-101P	Writing and Rhetoric I or Writing and Rhetoric I	3
	Credits	**15**
Semester 3		
ATEC-117	Occupational Relations and Job Search	2
AUTO-231	Engine Performance I	3
AUTO-233	Electrical Systems II and HVAC	2
AUTO-235L	Advanced Automotive Lab III	7
	Credits	**14**
Semester 4		
AUTO-241	Automatic Transmissions/Transaxles	3
AUTO-243	Engine Performance II	2
Select one of the following:		7
AUTO-245L	Advanced Automotive Lab IV	
AUTO-246L & AUTO-290	Advanced Automotive Lab V and Advanced Automotive Internship	
	Credits	**12**
	Total Credits	**58-60**

Course Key

GEM	AAS Institutionally Designated	Gateway	Milestone

Program Outcomes

Upon completion of the program, students will be able to:

1. Understand, explain, and model proper safety procedures in regards to overall shop safety practices with emphasis on maintenance/repair of automotive systems. Complete and pass nationally recognized S/P2, online safety training before attending any lab courses.
2. Effectively troubleshoot and repair the following automotive systems, following NATEF program standards:
   a. Engine Repair
   b. Manual Drive Train and Axles
   c. Suspension and Steering systems
   d. Brakes
   e. Electrical systems
3. Demonstrate good, productive work habits, and basic computation and communications skills when performing both technical and general functions required of an automotive technician.
4. In addition to the above outcomes, the Advanced Technical Certificate outcomes include:
5. Demonstrate effective diagnosis and repair of the following automotive systems:
   a. Engine Repair
   b. Automatic Transmissions and Transaxles
   c. Manual Drive Train and Axles
   d. Suspension and Steering systems
   e. Brakes
   f. Electrical/Electronic systems
   g. Heating and Air conditioning systems
   h. Engine performance
6. Analyze vehicle malfunctions and formulate a process of diagnosis.
7. Employ the proper operation of mechanical and electrical test equipment.
8. Evaluate test results to predict the most likely root cause.
9. Formulate the most efficient repair procedure