

# Industrial Technology Courses

Course Title	9th Grade	10th Grade	11th Grade	12th Grade
Automotive Systems I	•	•	•	•
Automotive Technology I - ASE 101 - Shop Orientation		•	•	•
Automotive Technology I - ASE 122 - Auto Electrical Safety Systems		•	•	•
Automotive Technology II - ASE 250 - Auto Transmission/Transaxle		•	•	•
Automotive Technology I - ASE 103 - Auto Maintenance		•	•	•
Automotive Technology II - ASE 264 - Auto Heating & Air Conditioning		•	•	•
Automotive Technology III			•	•
Automotive Technology IV			•	•
Automotive Technology V				•
Automotive Technology VI				•
Basic Repair for Home & Apartment	•	•	•	•
Fundamentals of Carpentry	•	•	•	•
Woodworking I	•	•	•	•
Woodworking II	•	•	•	•
Woodworking III		•	•	•
Introducion to Metals	•	•	•	•

*Ponderosa High School is the only NATEF accredited automotive program to offer college credit through a partnership with Arapahoe Community College in Douglas County.*

<b>Automotive Systems I 45790</b>	<b>Credit: 0.5</b>	<b>\$30/Semester</b>	<b>Grade: 9-12</b>
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**Prerequisites:** None  
**Graduation Req:** Practical Arts

This course introduces students to the basics of vehicle ownership in both classroom and shop environments. Upon completion of the course, students will have an understanding of normal vehicle care and maintenance. Topics of study include basic tool usage, roadside safety, basic vehicle maintenance, and responsible vehicle ownership.

<b>Automotive Technology I ASE 101 – Shop Orientation (CE) - Fall 69203</b>	<b>Credit: 0.5</b>	<b>\$80/Semester Cost of Workbook</b>	<b>Grade: 10-12</b>
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**Prerequisites:** Students must attend a program orientation meeting offered the spring prior to enrollment. Co-enrolled with ASE 122 - Auto Electrical Safety Systems and ASE 250- Auto Transmission/Transaxle.  
**Graduation Req:** Practical Arts

Provides students with safety instruction in the shop and on the Automobile. Emphasis is placed on the proper use and care of test equipment, precision measuring and machining equipment, gaskets, adhesives, tubing, wiring, jacks, presses, and cleaning equipment and techniques. Students enrolled in this course must be concurrently enrolled in ACC.

<b>Automotive Technology I ASE 103 – Auto Maintenance (CE) - Spring 69204</b>	<b>Credit: 0.5</b>	<b>\$80/Semester Cost of Workbook</b>	<b>Grade: 10-12</b>
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**Prerequisites:** Grade of 60% or higher ASE 101 - Shop Orientation, ASE 122 Auto Electrical Safety Systems and ASE 250 - Auto Transmission/Transaxle. Co-enrollment with ASE 264 Intro to Auto HVAC.  
**Graduation Req:** Practical Arts

This course addresses three primary areas of concern for the average car owner. The first is the basics of how various systems on the automobile work. The second is the maintenance required for the vehicle. The third is the financial concerns of owning the vehicle. Students enrolled in this course must be concurrently enrolled in ACC.

<b>Automotive Technology I ASE 122 – Auto Electrical Safety Systems (CE) - Fall 69205</b>	<b>Credit: 0.5</b>	<b>\$80/Semester Cost of Workbook</b>	<b>Grade: 10-12</b>
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**Prerequisites:** Students must attend a program orientation meeting offered the spring prior to enrollment. Co-enrolled with ASE 101 – Shop Orientation and ASE 250-Auto Transmission/Transaxle.  
**Graduation Req:** Practical Arts

Teaches the student to identify operation of vehicle lighting systems, Supplemental Inflatable Restraints (SIR), windshield wiper, driver warning systems and vehicle accessories. Students enrolled in this course must be concurrently enrolled in ACC.

**Automotive Technology II**      **Credit:**      **\$80/Semester**      **Grade:**  
**ASE 250 – Auto Transmission**      **0.5**      **Cost of Workbook**      **10-12**  
**& Transaxle (CE) - Fall**  
**69206**

**Prerequisites:** Co-enrolled with ASE 101 – Shop Orientation and ASE 250-Auto Maintenance.

**Graduation Req:** Practical Arts

Focuses on practical methods of maintaining, servicing and performing minor adjustments on an automatic transmission and transaxle. Students enrolled in this course must be concurrently enrolled in ACC.

**Automotive Technology II**      **Credit:**      **\$80/Semester**      **Grade:**  
**ASE 264 – Intro to Auto**      **0.5**      **Cost of Workbook**      **10-12**  
**HVAC (CE) - Spring**  
**69207**

**Prerequisites:** Grade of 60% or higher in ASE 101 - Shop Orientation, ASE 122 - Auto Electrical Safety Systems & ASE 250 - Auto Transmission/Transaxle. Co-enrollment with ASE 103 - Auto Maintenance.

**Graduation Req:** Practical Arts

Covers basic operation of the Heating and Air Conditioning components. Students enrolled in this course must be concurrently enrolled in ACC.

**Automotive**      **Credit:**      **\$80/Semester**      **Grade:**  
**Technology III**      **1**      **Cost of Workbook**      **11-12**  
**45780**

**Prerequisites:** Automotive Technology II with a grade of 60% or higher

**Graduation Req:** Practical Arts

This course prepares students for taking the Automotive Service Excellence (ASE) student certification exams. Students study advanced theory, operation, & repair of the engine, brake, steering, and suspension systems. This fall semester course is double blocked and must be taken with spring semester course Automotive Technology IV.

**Automotive**      **Credit:**      **\$80/Semester**      **Grade:**  
**Technology IV**      **1**      **Cost of Workbook**      **11-12**  
**45785**

**Prerequisites:** Automotive Technology III with a grade of 60% or higher

**Graduation Req:** Practical Arts

Students taking Automotive Technology IV will take the Automotive Service Excellence (ASE) student certification exams. Students study advanced theory, operation, & repair of the engine, ignition, fuel delivery, and emissions control systems. This spring semester course is double blocked and must be taken with fall semester course Automotive Technology III.

<b>Automotive Technology V 45786</b>	<b>Credit:</b> <b>1</b>	<b>\$80/Semester Cost of Workbook</b>	<b>Grade:</b> <b>12</b>
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**Prerequisites:** Automotive Technology IV with a grade of 60% or higher  
**Graduation Req:** Practical Arts

Automotive Technology V provides students with training in shop management practices including inventory controls, OSHA and EPA compliance, and the soft skills necessary to strong interpersonal skills. Please note this is a semester long, double block schedule course meeting 5 times per week.

<b>Automotive Technology VI 45787</b>	<b>Credit:</b> <b>1</b>	<b>\$80/Semester Cost of Workbook</b>	<b>Grade:</b> <b>12</b>
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**Prerequisites:** Automotive Technology V with a grade of 60% or higher  
**Graduation Req:** Practical Arts

Automotive Technology VI is a final class to prepare students for the auto repair industry and trade school. Auto Technology I through V will be reviewed to reinforce basic knowledge and skills, then put to use by performing major repairs on vehicles.

<b>Basic Repair for Home &amp; Apartment 45415</b>	<b>Credit:</b> <b>0.5</b>	<b>\$45/Semester</b>	<b>Grade:</b> <b>9-12</b>
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**Prerequisites:** None  
**Graduation Req:** Practical Arts

The Basic Repairs For Home or Apartment class will provide students with the opportunity to learn essential skills to perform maintenance and repair tasks in a personal dwelling. In addition to general safety, curriculum will include the following non-code topics: pouring and finishing a small concrete pad, framing and finishing walls, basic wiring and electrical topics, mounting a toilet, changing a bath/kitchen fixture, changing door hardware, painting, and installing roofing.

<b>Fundamentals of Carpentry 45405</b>	<b>Credit:</b> <b>0.5</b>		<b>Grade:</b> <b>9-12</b>
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**Prerequisites:** Basic Repair for Home & Apartment  
**Graduation Req:** Practical Arts

Students learn the fundamentals of safe tool use, construction materials, and scale drawing. These skills, along with carpentry techniques, are applied to the building of structures.

<b>Woodworking I 45400</b>	<b>Credit:</b> <b>0.5</b>	<b>\$40/Semester</b>	<b>Grade:</b> <b>9-12</b>
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**Prerequisites:** Basic Repair for Home & Apartment  
**Graduation Req:** Practical Arts

This course serves as an introduction to woodworking methods, properties of wood and wood products, and a strong foundation for safe and effective use of woodworking tools and machinery. The areas covered in this course include wood finishing, lamination, wood identification, and safety. Projects include, but are not limited to, jewelry boxes, pen making, wall shelves, chess and cutting boards.

