



South Central College

## AST 1112 Introduction to Auto Service

### Course Outcome Summary

#### Course Information

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| <b>Description</b>   | This course is a requisite for the Automotive Service program. The course will include the following topics: shop safety, shop practices and procedures, vehicle identification, use of electronic service information, proper use of hand tools, power tools, hoist and other shop equipment, basic fasteners, tires, lubricants and fluids. |
| <b>Total Credits</b> | 2   |
| <b>Total Hours</b>   | 48  |

#### Types of Instruction

| Instruction Type | Credits/Hours |
|------------------|---------------|
| Lecture          |               |
| Lab              |               |

#### Pre/Corequisites

Admission into the Automotive Service program

#### Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

#### Course Competencies

##### 1. Exhibit professionalism and demonstrate proper shop safety procedures

###### Learning Objectives

Demonstrate professional conduct, act responsibly and accept responsibility for the successful and timely completion of assignments

Identify and explain safety considerations, demonstrate proper safety procedures

Explain Material Safety Data Sheets

Describe the correct use and operation of fire extinguishers

##### 2. Follow required shop operating procedures

###### Learning Objectives

Identify, explain and follow shop operating procedures and practices

Complete customer work authorization form

Create a service order identifying the customer, vehicle and work to be performed  
Prepare a parts request form identifying the customer, service order and the required parts

**3. Demonstrate effective use of the electronic service information and service order writing system**

**Learning Objectives**

Locate and explain vehicle identification and major component identification numbers.  
Locate and follow all applicable service information procedures, precautions and service bulletins  
Analyze vehicle specifications  
Complete work order to include customer information, vehicle identifying information, customer concern, related service history, cause, and correction.  
Prepare a written estimate

**4. Demonstrate the correct and safe use of tools and equipment**

**Learning Objectives**

Demonstrate the correct and safe use of a hoist, oxy-acetylene torch, flaring tools, drills, cutting tools, threading tools, battery charges, tire machines and various other tools and equipment  
Start a vehicle using jumper cables or an auxiliary power supply.

**5. Explain types of threads and demonstrate thread tapping procedure, identify and demonstrate double wall and ISO flaring**

**Learning Objectives**

Identify bolt diameter, bolt hardness, thread pitch and demonstrate the correct tapping of threads  
Explain the types of flares use in vehicles and demonstrate the correct procedure for flaring a steel line

**6. Identify and explain various types of automotive fluids and tire construction**

**Learning Objectives**

Research the correct lubricant and fluid types for a specific vehicle  
Demonstrate proper fluid level checking and coolant testing procedures  
Identify and explain types of tires, tire dimensions, and construction  
Demonstrate tire inspection, inflation, removal, repair and balancing procedures

**SCC Accessibility Statement**

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: [www.southcentral.edu/disability](http://www.southcentral.edu/disability)

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.