

SOUTHEAST COMMUNITY COLLEGE
TRANSPORTATION OCCUPATIONS
AUTOMOTIVE TECHNOLOGY
COURSE SYLLABUS
October 30, 2023

I. CATALOG DESCRIPTION

Course Number: AUTT 1007
Course Title: Auto Shop Safety and Repair
Prerequisite: See Course Information Document for specific prerequisite(s)

Catalog Description: This course covers the introduction to the automotive shop, many of the basic elements of repair and the proper use of hand and power tools. It covers shop safety, OSHA hazard communication standards/right-to-know laws. Also covered are thread repair, tube flaring, fasteners, micrometers and other equipment used by the professional automotive technician.

Credit Hour: 3
Class Hours: 30
Lab Hours: 45
Total Contact Hours: 75

II. COURSE OBJECTIVES: *Course will:*

- A. Cover automotive shop procedures and repair.
- B. Cover identification and proper use of hand tools.
- C. Cover identification and proper use of power tools.
- D. Cover locating service information.
- E. Cover shop safety.
- F. Cover OSHA Hazard Communication Standards.
- G. Cover hazard chemical right-to-know.
- H. Cover thread repair.
- I. Cover tubing and fastener use.
- J. Cover micrometer use and reading (English & Metric)

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *Student will be able to:*

- 1. Discuss and follow the school and laboratory policies of SCC and the Automotive Technology program.
- 2. Distinguish between the areas of specialization and the opportunities in the automotive field. This included skills required of automotive technicians, basic job functions for basic as well as advanced automotive technicians.
- 3. Identify jobs available in automotive service.

4. Understand the current types of licensing and certifications required for automotive technicians.
5. Understand expectations from employers in the performance of duties.
6. Demonstrate ability to locate service information.
7. Identify potential safety hazards in the automotive shop, identify unsafe shop practices and be able to explain precautionary preventative measures in the automotive shop.
8. Demonstrate the proper use of metric and English measuring instruments used in the automotive industry.
9. Demonstrate the ability to use hand tools including safe handling procedures.
10. Demonstrate knowledge of fastener types, thread repair, tube flaring and service.
11. Explain the importance of current OSHA standards as they relate to the auto industry.

B. GENERAL EDUCATION LEARNING OUTCOMES

GELO #3: Critical Thinking & Problem Solving

1. Collect, identify, interpret and analyze data.

IV. CONTENT/UNIT OF INSTRUCTION

- A. Course introduction/the automotive industry
- B. Automotive career opportunities
- C. Technician certification and licensing
- D. Automotive technician skill levels and pay schedules – hourly vs. flat rate
- E. Areas of specialization
- F. Other automotive careers
- G. Working in the automotive shop
- H. Hand tools/power tools
- I. Service information
- J. Safety
- K. OSHA – Hazard Communications/Chemical right-to-know
- L. Precision measuring instruments
- M. Fasteners/thread repair/tube flaring
- N. Lab exercises

V. INSTRUCTIONAL MATERIALS

The Course Information Document lists the current text(s) required for this class. The list is also available in the campus bookstore. The Course Information Document also lists the tools/equipment or other supplies required for this class.

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Lecture
2. Small and large group discussion
3. Video presentation
4. Demonstrations
5. Project boards
6. Handouts
7. Observations

8. Assigned lab projects
9. Field trips.

VII. METHODS OF EVALUATION

A. Methods of evaluation typically include a combination of the following:

1. Notebook (if required)
2. Quizzes
3. Tests
4. Lab grades
5. Class/lab conduct and participation

Letter grades will be based on the SCC Standard Grade Scale Policy. **Note:** See Course Information Document for specific details on how the course grades will be calculated.

VIII. SPECIFIC COURSE REQUIREMENTS

A. Student must:

1. Complete all tests, projects, assignments, and notebook (if required).
2. Earn a final grade of 70% (2.0) or higher.

B. Attendance:

1. Students must follow the Attendance Policy as stated in the college student handbook, automotive lab and classroom policies handbook or Course Information Document.

C. Shop safety rules will be followed.

D. Any additional course requirements as stipulated by the instructor.