SOUTHEAST COMMUNITY COLLEGE
TRANSPORTATION OCCUPATIONS
AUTOMOTIVE TECHNOLOGY
COURSE SYLLABUS
February 28, 2023

I. CATALOG DESCRIPTION

Course Number: AUTT1006
Course Title: Automotive Electrical Repair
Prerequisite or Co-Requisite(s): AUTT1116

Catalog Description: This course covers specific electrical systems and components that Automotive technicians test and repair. Along with the tools and equipment that is needed to repair these vehicle systems.

Credit Hour: 1.0
Classroom Hours: 8
Lab Hours: 23
Total Contact Hours: 31

II. COURSE OBJECTIVES: *Course will:*

- **A.** Introduce automotive scan-tool function and usage
- **B.** Theory & Operation of Automotive Input Sensors & Output Devices
- **C.** Testing & Repair of the Automotive Wiring Systems
- **D.** Testing, Diagnosis, & Repair of Automotive Electrical Systems
- **E.** Introduction to Oscilloscopes

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

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

1. Diagnose the electrical system and its individual components.
2. Utilize wiring diagrams and automotive service information to troubleshoot electrical circuits.
3. Explain the function and operation of various automotive sensors and/or outputs.
4. Test and repair the electrical system and its individual components and accessories using industry service equipment.
5. Demonstrate the use of an oscilloscope.
6. Connect and use a scan-tool to retrieve vehicle information

B. GELO #3: Critical Thinking & Problem Solving

Outcomes:

1. Collect, Identify, Interpret and analyze data.

IV. CONTENT/UNIT OF INSTRUCTION

- **A.** Scan-tools
- **B.** Lab Scopes
- **C.** Wiring diagrams
- **D.** Automotive electrical devices
- **E.** Strategic diagnosis processes

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. METHONDS 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. Online information

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. Attendance/class conduct

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. Completion of all tests, projects, assignments, and notebook (if required).
2. Earn a final grade of 70% (2.0) or higher to progress in the program.

B. Attendance 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. Additional course requirements.