

SOUTHEAST COMMUNITY COLLEGE
ADVANCED TECHNOLOGIES & SKILLED TRADES DIVISION
AUTOMOTIVE STUDENT SERVICE EDUCATIONAL TRAINING (ASSET)
COURSE SYLLABUS
September 10, 2025

I. CATALOG DESCRIPTION

Course Number: ASST2747
Course Title: Ford Electrical II & New Product Updates
Prerequisite(s): ASST 1111 & ASST 1116

Catalog Description: Advanced auto electricity course covering theory, testing, diagnosis, and repair of body electrical accessories: windows, power seats, windshield wipers, cruise controls, and computer-controlled body electronics. Advanced drivability diagnosis and service. ABS/TCS/stability control diagnosis and service. Includes overview of Ford new product features and information for current model year vehicles.

Credit Hour: 6.0
Class Hours: 30
Lab Hours: 180
Total Contact Hours: 210

II. COURSE OBJECTIVES: *Course will:*

- A.** Cover the operation of Ford computerized body electrical and electronic systems.
- B.** Cover the testing of Ford computerized body electrical and electronic systems.
- C.** Cover the diagnosis of Ford computerized body electrical and electronic systems.
- D.** Cover the repair of Ford computerized body electrical and electronic systems.
- E.** Cover the diagnosis and repair of Ford computerized engine controls.
- F.** Cover the diagnosis and repair of Ford computerized ABS/TCS/stability control systems.
- G.** Teach the manufacturing processes.
- H.** Teach the production processes.
- I.** Teach the assembly processes.
- J.** Teach the Ford history, heritage, and upcoming technology.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

A. STUDENT LEARNING OUTCOMES: *The student will be able to:*

- 1. Demonstrate the ability to perform complex diagnosis of components, circuits, controls and inputs in Ford body electrical and electronic systems.
- 2. Demonstrate the proper use of specialized service equipment in the diagnosis of Ford body electrical and electronic systems.
- 3. Perform electrical and electronic repairs of body systems using specialized service equipment.
- 4. Describe current, new and future technology regarding Ford body electrical and electronic systems.
- 5. Provide an opportunity to learn new model features.
- 6. Understand what it takes to design, engineer, and produce new model vehicles.

B. GENERAL LEARNING OUTCOMES:

GELO #3: Critical Thinking & Problem Solving

Outcome:

1. Collect, identify, interpret and analyze data.

IV. CONTENT/UNIT OF INSTRUCTION

- A. Review automotive electrical and electronics
- B. Electrical troubleshooting manuals and diagnostics information
- C. Module communication networks
- D. Audio and entertainment systems
- E. Anti-Theft system
- F. Lighting and power openings
- G. Supplemental restraints system
- H. Electronic brake controls, traction controls and stability controls
- I. New product updates

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. Transparencies
5. Demonstrations
6. Project boards
7. Flip charts
8. Handouts
9. Observations
10. Assigned lab projects
11. 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. 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. Complete 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:

1. Student 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.