SOUTHEAST COMMUNITY COLLEGE
TRANSPORTATION OCCUPATIONS
AUTOMOTIVE SERVICE EDUCATIONAL PROGRAM (ASEP)
COURSE SYLLABUS
January 24, 2023

I. CATALOG DESCRIPTION

Course Number: ASEP 2232
Course Title: GM Drivelines and New Product Updates
Prerequisite: ASEP1111 & ASEP1116

Catalog Description: This course covers operating principles, diagnosis, service and repair of General Motors vehicle driveline systems including manual transmission/transaxles, clutch and automatic transmission/transaxles. Includes overview of General Motors new product features and information for current model year vehicles.

Credit Hours: 4.5
Class Hours: 30
Lab Hours: 113
Total Contact Hours: 143

II. COURSE OBJECTIVES: *Course will:*

A. Introduce and identify GM manual transmissions
B. Introduce and identify GM manual transaxles.
C. Discuss theory, operation, diagnosis and service of GM manual transmissions.
D. Discuss theory, operation, diagnosis and service of GM manual transaxles.
E. Discuss theory, operation, diagnosis and service of GM manual transmission clutch assemblies.
F. Introduce and identify types of GM automatic transmissions.
G. Introduce and identify types of GM automatic transaxles.
H. Discuss theory, operation, diagnosis and service of GM automatic transmissions.
I. Discuss theory, operation, diagnosis and service of GM automatic transaxles.
J. Provide field trip opportunity to observe the General Motors company and industry partners in areas such as: manufacturing, manufacturing, technical service assistance, cause analysis, customer satisfaction and aftermarket sales.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES

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

1. Perform lab exercises in a safe and workmanlike manner according to General Motor Service Information procedures.
2. Explain theory of operation, powerflow and diagnostic principles for GM manual transmissions, and transaxles and clutch assemblies.
3. Perform disassembly, cleaning, inspection, component replacement and reassembly of manual transmissions and transaxles using General Motors Service Information.
4. Recall manual transmission clutch service procedures using General Motors

Service Information.

5. Explain theory of operation, powerflow and diagnostic principles for GM automatic transmissions and transaxles.
6. Perform disassembly, cleaning, inspection, component replacement and reassembly of automatic transmissions and transaxles using General Motors Service Information.
7. Perform automatic transmission/transaxle diagnostic procedures including: pressure tests, electrical function tests, road tests, electrical component tests, clutch air checks and DTC diagnosis using General Motors Service Information.
8. Recognize the importance of verifying the validity of the repair to ensure customer satisfaction.
9. Recognize the ethical responsibilities of proper automotive service in these areas and their responsibility in society for performing proper diagnosis and effective repair.
10. Recall observed processes used by General Motors company and industry partners in areas such as: manufacturing, manufacturing, technical service assistance, cause analysis, customer satisfaction and aftermarket sales.

B. GENERAL EDUCATION LEARNING OUTCOMES

GELO #3: Critical Thinking and Problem Solving

Outcome:

1. Collect, identify interpret and analyze data.

IV. CONTENT/UNIT OF INSTRUCTION

A. Introduction and identification of GM manual transmissions/transaxles
B. GM manual transmission
C. GM manual transaxle
D. GM manual transmission/transaxle diagnosis
E. GM manual transmission/transaxle clutch systems
F. Introduction and identification of GM automatic transmissions/transaxles
G. GM automatic transmission
H. GM automatic transaxle
I. GM automatic transmission/transaxle diagnosis
J. Corporate field trip

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. Online information
10. 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.

B. Attendance:

1. Students must following 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.