AUTOMOTIVE TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE



Students are taught to diagnose, correct and repair electrical, fuel, emissions, and mechanical problems found in today's modern automobile through classroom, laboratory, and field experience. Graduates are prepared for entry level positions as technicians in fleet service, manufacturer's dealerships, national oil company and transmission repair facilities, or independent garages. Course work prepares student for the National Institute for Automotive Service Excellence (ASE) automotive technician certifications. The AUTO Program is certified by the ASE Education Foundation in all eight ASE categories.

The General Motors Automotive Service Educational Program (GM ASEP) requires alternating school and General Motors dealership work experience sessions. In addition, GM ASEP students need to complete AUTO-1940 Automotive Field Experience I, AUTO-1950 Automotive Field Experience II, AUTO-1960 Automotive Field Experience III, and AUTO-2505 Automotive Electrical Diagnosis for General Motors ASEP. Please call the Automotive Technology department for more information.

The Ford Automotive Student Service Educational Training (ASSET) program requires alternating school and Ford dealership work experience sessions. In addition, Ford ASSET students need to complete AUTO-1940, AUTO-1950 and AUTO-1960 coursework. Please call the Automotive Technology department for more information.

Program contact: Learn more

This degree program contains one or more embedded certificates which will be automatically awarded when the certificate requirements are completed. If you do not want to receive the embedded certificate(s), please notify the Office of the Registrar at RegistrarOffice@tri-c.edu.

Learn more about how certificate credits apply to the related degree.

Program Admission Requirements

- · High School Diploma/GED not required, but highly recommended
- Dealership sponsor required for GM ASEP program and FORD ASSET program.
- GM ASEP and FORD ASSET student handbooks contain educational and worksite requirements for continuation in program

Other Information

ASEP and ASSET students need to complete five field experience credits:

| Code | Title | Credit Hours |
|-----------|---------------------------------|-----------------|
| AUTO-1940 | Automotive Field Experience I | 1 |
| AUTO-1950 | Automotive Field Experience II | 1 |
| AUTO-1960 | Automotive Field Experience III | 1 |
| AUTO-2940 | Automotive Field Experience IV | 1 |
| AUTO-2950 | Automotive Field Experience V | 1 |

- ASEP students need to complete AUTO-2505 Automotive Electrical Diagnosis for General Motors ASEP
- Enrollment in individual automotive courses for students who are not degree majors is permitted

Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

- a. Read repair orders, write service recommendations, obtain pertinent vehicle information, and document all problems.
- b. Work independently, professionally, and as a member of an automotive team.
- c. Use basic math and appropriate tools and equipment to perform maintenance and basic repair services according to industry standards in a safe manner.
- d. Assist in diagnosis and perform mechanical repairs using appropriate tools and equipment according to industry standards in a safe manner.
- Diagnose and perform complex mechanical and electrical repairs using appropriate tools and equipment according to industry standards in a safe manner.
- f. Apply basic business and management practices (marketing, inventory control, accounting, customer relations, employee relations) to the automotive environment.
- g. Identify, interpret and document customer concerns and determine necessary actions. Listen and respectfully communicate with customers, co-workers and managers.

Suggested Semester Sequence

First Semester

| | | Hours |
|------------------------------|---|-------|
| AUTO-1101 | Introduction to Automotive Service Procedures ¹ | 3 |
| AUTO-1400 | Automotive Alignment, Steering and Suspension | 3 |
| AUTO-1450 | Automotive Braking Systems | 3 |
| AUTO-1502 | Automotive Electrical Fundamentals | 3 |
| Select one of the following: | | 3 |
| COMM-1010 | Fundamentals of Speech Communication | |
| COMM-101H | Honors Speech Communication | |
| | Credit Hours | 15 |
| Second Semeste | r | |
| AUTO-1050 | Numerical Applications in Automotive Service | 3 |
| AUTO-1300 | Automotive Engines | 3 |
| AUTO-1510 | Automotive Electrical Systems | 3 |
| Select one of the following: | | 3 |
| | | |

Credit

| ENG-1010 | College Composition I | |
|----------------|---|----|
| ENG-101H | Honors College Composition I | |
| Social and Beh | avioral Sciences Requirements | 3 |
| | Credit Hours | 15 |
| Third Semester | | |
| AUTO-2310 | Manual Transmission and Drivetrain | 3 |
| AUTO-2350 | Automotive HVAC | 2 |
| AUTO-2400 | Engine Performance | 3 |
| AUTO-2940 | Automotive Field Experience IV | 1 |
| AUTO-XXXX | Automotive Elective | 3 |
| MATH-1190 | Algebraic and Quantitative Reasoning (or Any Approved Ohio Transfer 36 Mathematics course) ² | 3 |
| Arts and Huma | nities/Natural Sciences Requirements | 3 |
| | Credit Hours | 18 |
| Fourth Semeste | er | |
| AUTO-2300 | Automatic Transmissions | 3 |
| AUTO-2450 | Automotive Electronic Engine Controls | 3 |
| AUTO-2701 | Automotive Service Operations | 3 |
| AUTO-2950 | Automotive Field Experience V ³ | 1 |
| DEGR-xxxx | General Elective (see Elective list) | 3 |
| DEGR-xxxx | General Elective (see Elective list) | 3 |
| | Credit Hours | 16 |
| | Total Credit Hours | 64 |

¹ AUTO-1101 is not required for Ford ASSET and GM ASEP students. Students in these programs may apply AUTO-1101 credits toward the general elective requirement.

- ² MATH-1100 Mathematical Exploration or MATH-1240 Contemporary Mathematics taken prior to Fall 2024 will be accepted to meet Mathematics requirements for this program
- Mathematics requirements for this program.
- ³ GM ASEP Students must also complete AUTO-1940 Automotive Field Experience I, AUTO-1950 Automotive Field Experience II, AUTO-1960 Automotive Field Experience III, and AUTO-2505 Automotive Electrical Diagnosis for General Motors ASEP. Ford ASSET students must also complete AUTO-1940, AUTO-1950 and AUTO 1960 Automotive Field Experience.

Ford ASSET Program Additional Required Courses

| Code | Title | Credit Hours |
|-----------|---------------------------------|-----------------|
| AUTO-1940 | Automotive Field Experience I | 1 |
| AUTO-1950 | Automotive Field Experience II | 1 |
| AUTO-1960 | Automotive Field Experience III | 1 |

GM ASEP Program Additional Required Courses

| Code | Title | Credit Hours |
|-----------|--|-----------------|
| AUTO-1940 | Automotive Field Experience I | 1 |
| AUTO-1950 | Automotive Field Experience II | 1 |
| AUTO-1960 | Automotive Field Experience III | 1 |
| AUTO-2505 | Automotive Electrical Diagnosis for General Motors ASEP | 3 |

ELECTIVES

Recommend selecting from the below courses to fulfill elective requirement. Elective requirement may be fulfilled by other courses not listed here.

| Code | Title | Credit Hours |
|-----------|--|-----------------|
| BADM-1020 | Introduction to Business | 3 |
| ENG-2151 | Technical Writing | 3 |
| FIN-1061 | Personal Finance | 3 |
| GEN-1022 | Strategies for Success | 3 |
| COMM-1000 | Fundamentals of Interpersonal Communication | 3 |

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.