

Careers

The successful service technician for today's automobile must possess a working knowledge of various vehicle systems and their inter-relationships. The technician should be able to diagnose, service, and repair the vehicle under a variety of working conditions. Automotive workers use computerized shop equipment and work with electronic components, while maintaining their skills with traditional hand tools.

Career opportunities include dealership personnel, writers, technicians, diagnosticians, and advisers; manufacturers' representatives for service and parts; and self employment.

Salary

Automotive service technicians' median hourly earnings were \$15.60 in 2004 based on experience and ability. Experienced technicians employed by automotive dealers and independent repair shops may receive commissions related to labor costs.

Job Outlook

With the advent of automotive electronics, microcomputer controls, and emissions regulations, there is an increasing need for technicians with logical thinking patterns, good communication skills, and mechanical expertise.

Employment of automotive service technicians and mechanics is expected to grow as fast as the average through 2012.

Education & Training Options

For many positions, a two year post-secondary degree with practical understanding of electronics and mechanics will be a minimum requirement.

Montgomery College offers an associate of applied science degree (A.A.S.) and certificate options for automotive technology. (*See reverse for automotive technology curricula.*)

■ Degree

The automotive technology curriculum prepares career students for employment by providing competencies in basic mechanics, automotive sciences, including physical, electrical, and chemical principles; and automotive diagnostics and repair for all certifiable areas. Students may select electives to enhance specialized competencies or interests.

■ Certificate

Four certificate programs are offered for students who want to prepare for employment:

- (1) automotive electrical systems specialist;
- (2) engine performance specialist;
- (3) powertrain specialist; and
- (4) undercar specialist.

■ Skills Upgrade

The automotive technology courses included in the curriculum fulfill some of the course requirements to sit for A.S.E. certification exams.

Contact @ MC

Rockville Campus240-567-7601
[www.montgomerycollege.edu/Departments/
giterv/auto](http://www.montgomerycollege.edu/Departments/giterv/auto)

Automotive Technology Curricula

Degrees, Certificates, and Letters of Recognition

Montgomery College is authorized by the Maryland Higher Education Commission (MHEC) to offer four degrees (associate of arts, associate of science, associate of applied science, and associate of arts in teaching) and certificates. In addition, the College recognizes students who satisfactorily complete certain course sequences with letters of recognition.

Some curricula are offered at all campuses, whereas others are limited to one or two. When a curriculum is offered at a specific campus, it is indicated by G for Germantown, R for Rockville, or TP for Takoma Park/Silver Spring.

Admission to Montgomery College is open to all.

Math, English, and reading assessment tests are required prior to registering. (Some students may be exempt from assessment. Consult the *Montgomery College Catalog* for criteria.) Financial aid and scholarships are available to qualified candidates.

Take the next step.

Complete an Application for Admission form (available online @ www.montgomerycollege.edu/admissions/mcadmiss.htm) or call 240-567-5000 for information.

Automotive Technology A.A.S. (R): 307

First Semester

| | | |
|--------|---------------------------------------|---|
| AT 101 | Introduction to Automotive Technology | 3 |
| AT 140 | Suspension and Steering | 5 |
| AT 161 | Automotive Electricity I | 4 |
| EN 101 | Techniques of Reading and Writing I | 3 |

Second Semester

| | | |
|--------|---------------------------|---|
| AT 150 | Brakes | 5 |
| AT 162 | Battery/Starting/Charging | 3 |
| AT 163 | Chassis Circuits | 4 |
| | English foundation | 3 |
| | Mathematics foundation | 3 |

Summer Semester

| | | |
|--------|---------------------|---|
| AT 200 | Auto Tech Practicum | 1 |
| AT 270 | Automotive HVAC | 4 |

Third Semester

| | | |
|-----------|-----------------------------------|---|
| AT 111 | Engine Repair | 4 |
| AT 180 | Basic Engine Performance | 4 |
| CH 109A/B | Chemistry and Society/Lab | |
| or | Natural sciences lab distribution | 4 |
| SP 212 | Effective Technical Presentations | |
| or | Speech foundation | 3 |

Fourth Semester

| | | |
|--------|---|---|
| AT 282 | Engine Performance II | 4 |
| AT 283 | Engine Performance III | 4 |
| | Health foundation | 1 |
| | Behavioral and social sciences distribution | 3 |
| | Arts or humanities distribution | 3 |

Total credit hours 68

(more)

Automotive Technology Curricula

(continued)

Automotive Electrical Systems Specialist Certificate (R): 162

First Semester

| | | |
|--------|---------------------------------------|---|
| AT 101 | Introduction to Automotive Technology | 3 |
| AT 161 | Automotive Electricity I | 4 |

Second Semester

| | | |
|--------|---------------------------|---|
| AT 162 | Battery/Starting/Charging | 3 |
| AT 163 | Chassis Circuits | 4 |

Total credit hours 14

Engine Performance Specialist Certificate (R): 160

First Semester

| | | |
|--------|---------------------------------------|---|
| AT 101 | Introduction to Automotive Technology | 3 |
| AT 161 | Automotive Electricity I | 4 |
| AT 180 | Basic Engine Performance | 4 |

Second Semester

| | | |
|--------|------------------------|---|
| AT 111 | Engine Repair | 4 |
| AT 282 | Engine Performance II | 4 |
| AT 283 | Engine Performance III | 4 |

Total credit hours 23

Powertrain Specialist Certificate (R): 161

First Semester

| | | |
|--------|---------------------------------------|---|
| AT 101 | Introduction to Automotive Technology | 3 |
| AT 161 | Automotive Electricity I | 4 |
| AT 180 | Basic Engine Performance | 4 |

Second Semester

| | | |
|--------|---|---|
| AT 111 | Engine Repair | 4 |
| AT 220 | Automotive Transmissions/ Transaxles | 5 |
| AT 230 | Manual Drive Train and Axles | 5 |

Total credit hours 25

Undercar Specialist Certificate (R): 163

| | | |
|--------|---------------------------------------|---|
| AT 101 | Introduction to Automotive Technology | 3 |
| AT 140 | Suspension and Steering | 5 |
| AT 150 | Brakes | 5 |
| AT 161 | Automotive Electricity I | 4 |

Total credit hours 17