

## AUTOMOTIVE TECHNOLOGY

The automotive technology curriculum provides for entry level skills in the automotive field. The program is designed to impart in-depth technical skills as required in today's highly technical automotive field. It prepares students for employment in the automotive and/or transportation trades. For those currently employed, upgrading and specialization skills will be stressed. The major emphasizes practical experience in actual repairs under simulated shop conditions.

### CAREER OPPORTUNITIES

Auto Electrician  
Auto Parts Salesperson  
Automotive Air Conditioning Technician  
Brake and Front-End Technician  
Computerized Engine Control Specialist  
Engine Machinist  
General Repair Technician  
High Performance and Racing Specialist  
Licensed Smog Technician  
Manufacturer Service Engineer  
Service Advisor  
Service Manager  
Technical Instructor  
Technical Sales Representative  
Transmission Technician  
Tune-up Technician

### I. AUTOMOTIVE TECHNOLOGY

#### Associate in Science Degree Requirements:

| Course   | Title  | Units     |
|----------|--|-----------|
| AUTO 120 | Engine Performance I - Mechanical and Ignition Systems | 5         |
| AUTO 121 | Emission Control License                               | 5         |
| AUTO 122 | Automotive Electrical Systems                          | 5         |
| AUTO 123 | Engine Performance II - Fuel Systems                   | 5         |
| AUTO 124 | Engine Performance III - Drivability                   | 5         |
| AUTO 180 | Automotive Service Advisor                             | 1         |
| AUTO 182 | Automotive Work Experience                             | 3         |
|          |  | <u>29</u> |

#### Select two of the following:

|          |  |             |
|----------|--|-------------|
| AUTO 129 | Introduction to Hybrid, Electric and Alternative Fueled Vehicles | 5           |
| AUTO 130 | Automotive Brakes and Brake License                              | 5           |
| AUTO 140 | Four-Wheel Alignment   | 5           |
| AUTO 152 | Drive Train Systems  | 4           |
| AUTO 160 | Air Conditioning and Heating Systems                             | 3           |
| AUTO 170 | Engine Overhaul  | 5           |
|          |  | <u>7-10</u> |

#### Select one of the following:

|          |   |            |
|----------|---|------------|
| AUTO 127 | Advanced Automotive Electrical Systems        | 5          |
| AUTO 135 | Advanced Brakes                               | 5          |
| AUTO 145 | Advanced Four-Wheel Alignment                 | 5          |
| AUTO 155 | Advanced Drive Train Systems                  | 4          |
| AUTO 165 | Advanced Air Conditioning and Heating Systems | 3          |
| AUTO 175 | Advanced Engine Overhaul                      | 5          |
| AUTO 176 | Engine Machining                              | 5          |
|          |   | <u>3-5</u> |
|          | Total Required                                | 39-44      |
|          | Plus General Education Requirements           |            |

FOR ALL CLASSES: Students are required to provide their own hand tools as required. Students are also required to provide ANSI Z-87.1 (1979) eye protection.

### Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Automotive Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### II. AUTOMOTIVE TECHNOLOGY-ADVANCED ENGINE PERFORMANCE AND EMISSIONS

#### Certificate Requirements:

| Course   | Title  | Units     |
|----------|--|-----------|
| AUTO 120 | Engine Performance I - Mechanical and Ignition Systems | 5         |
| AUTO 121 | Emission Control License                               | 5         |
| AUTO 122 | Automotive Electrical Systems                          | 5         |
| AUTO 123 | Engine Performance II - Fuel Systems                   | 5         |
| AUTO 124 | Engine Performance III - Drivability                   | 5         |
|          | Total Required   | <u>25</u> |

### Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Automotive Technology-Advanced Engine Performance and Emissions. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### III. AUTOMOTIVE TECHNOLOGY-ASEP

The General Motors sponsored ASEP degree program offers a unique job training opportunity to those students who are accepted. Training includes all systems of the sponsoring manufacturers' automobiles. In addition, students will be required to further their studies in a sponsoring dealership as a paid (work experience) technician. Students who test low in English, reading or math assessment scores (and are accepted into the program) will be required to take remedial courses in those areas in addition to the general education courses. Students who have previous college credit or an associate degree or higher may be exempt from all or part of the general education requirements; please see a counselor.

#### Associate in Science Degree Requirements:

| Course    | Title  | Units       |
|-----------|--|-------------|
| AUTO 121  | Emission Control License                     | 5           |
| AUTO 200  | ASEP-Orientation                             | 1           |
| AUTO 201  | ASEP-Electrical                              | 6           |
| AUTO 202  | ASEP-Brakes and Alignment                    | 7           |
| AUTO 203  | ASEP-Engine Repair                           | 4.5         |
| AUTO 204  | ASEP-Power Train                             | 7           |
| AUTO 205  | ASEP-Engine Performance and Air Conditioning | 7           |
| AUTO 206* | ASEP-Work Experience                         | 15          |
|           | Total Required                               | <u>52.5</u> |
|           | Plus General Education Requirements          |             |

\*Must be repeated five times for a total of 15 units.

### IV. AUTOMOTIVE TECHNOLOGY-ASSET

The Ford sponsored ASSET degree program offers a unique job training opportunity to those students who are accepted. Training includes all systems of the sponsoring manufacturers' automobiles. In addition, students will be required to further their studies in a sponsoring dealership as a paid (work experience) technician. Students who test low in English, reading or math assessment scores (and are accepted into the program) will be required to take remedial courses in those areas in addition to the general education courses. Students who have previous college credit or an associate degree or higher may be exempt from all or part of the general education requirements; please see a counselor.

#### Associate in Science Degree Requirements:

| Course    | Title  | Units       |
|-----------|--|-------------|
| AUTO 121  | Emission Control License                           | 5           |
| AUTO 190  | ASSET-Orientation, PDI and Lubrication             | 2           |
| AUTO 191  | ASSET-Brakes and Alignment                         | 7           |
| AUTO 192  | ASSET-Drive Train                                  | 8           |
| AUTO 193  | ASSET-Engine Repair                                | 4.5         |
| AUTO 195  | ASSET-Electronic Engine Controls                   | 7           |
| AUTO 196  | ASSET-Electrical, Accessories and Air Conditioning | 5           |
| AUTO 197* | ASSET-Work Experience                              | 13          |
|           | Total Required                                     | <u>51.5</u> |
|           | Plus General Education Requirements                |             |

\*Must be repeated five times for a total of 13 units.

### V. AUTOMOTIVE TECHNOLOGY-BRAKES AND FRONT-END

#### Certificate Requirements:

| Course   | Title                               | Units     |
|----------|-------------------------------------|-----------|
| AUTO 130 | Automotive Brakes and Brake License | 5         |
| AUTO 140 | Four-Wheel Alignment                | 5         |
| AUTO 145 | Advanced Four-Wheel Alignment       | 5         |
| AUTO 180 | Automotive Service Advisor          | 1         |
| AUTO 182 | Automotive Work Experience          | 3         |
|          | Total Required                      | <u>19</u> |

### Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Automotive Technology-Brakes and Front-End. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

### VI. AUTOMOTIVE TECHNOLOGY-ENGINE PERFORMANCE AND DRIVE TRAIN

#### Certificate Requirements:

| Course   | Title  | Units     |
|----------|--|-----------|
| AUTO 120 | Engine Performance I - Mechanical and Ignition Systems | 5         |
| AUTO 152 | Drive Train Systems                                    | 4         |
| AUTO 170 | Engine Overhaul  | 5         |
| AUTO 180 | Automotive Service Advisor                             | 1         |
| AUTO 182 | Automotive Work Experience                             | 3         |
|          | Total Required   | <u>18</u> |

### Certificate of Achievement

Students who complete the requirements above qualify for a Certificate in Automotive Technology-Engine Performance and Drive Train. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.