

## PROGRAMS

### AUTOMOTIVE SYSTEMS TECHNOLOGY (A60160)

Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry.

**Automotive Systems Technology:** A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air conditioning systems

Upon completion of this curriculum, students should be prepared to take the ASE exams and be ready for full-time, entry-level employment in dealerships and repair shops in the automotive service industry.

#### Associate in Applied Science Degree Program

|                          |                           | Course Hours Per Week |           | Semester Hours |
|--------------------------|---------------------------|-----------------------|-----------|----------------|
| First Semester (Fall)    |                           | Class                 | Lab       | Credit         |
| ACA-115                  | Success & Study Skills    | 0                     | 2         | 1              |
| AUT-141                  | Suspension & Steering Sys | 2                     | 3         | 3              |
| AUT-141A                 | Suspension & Steering Lab | 0                     | 3         | 1              |
| MAT***                   | MAT-110 or higher         | 2-3                   | 2         | 3-4            |
| TRN-110                  | Intro to Transport Tech   | 1                     | 2         | 2              |
| TRN-120                  | Basic Transp Electricity  | 4                     | 3         | 5              |
| <b>Credit Hours</b>      |                           | <b>9-10</b>           | <b>15</b> | <b>15-16</b>   |
| Second Semester (Spring) |                           |                       |           |                |
| AUM-111                  | Managing Automotive Org   | 3                     | 0         | 3              |
| AUT-151                  | Brake Systems             | 2                     | 3         | 3              |
| AUT-151A                 | Brakes Systems Lab        | 0                     | 3         | 1              |
| AUT-163                  | Adv Auto Electricity      | 2                     | 3         | 3              |
| TRN-180                  | Basic Welding for Transp  | 1                     | 4         | 3              |
| <b>Credit Hours</b>      |                           | <b>8</b>              | <b>13</b> | <b>13</b>      |

|  |   | Course Hours Per Week |             | Semester Hours |
|--|---|-----------------------|-------------|----------------|
| <b>Third Semester (Summer)</b>               |   |                       |             |                |
| ENG-111                                      | Writing and Inquiry                           | 3                     | 0           | 3              |
| TRN-140                                      | Transp Climate Control                        | 1                     | 2           | 2              |
| TRN-140A                                     | Transp Climate Cont Lab                       | 1                     | 2           | 2              |
|  | <b>Credit Hours</b>                           | <b>5</b>              | <b>4</b>    | <b>7</b>       |
| <b>Fourth Semester (Fall)</b>                |   |                       |             |                |
| AUT-116                                      | Engine Repair                                 | 2                     | 3           | 3              |
| AUT-116A                                     | Engine Repair Lab                             | 0                     | 3           | 1              |
| AUT-181                                      | Engine Performance 1                          | 2                     | 3           | 3              |
| AUT-183                                      | Engine Performance 2                          | 2                     | 6           | 4              |
| TRN-112                                      | Powertrain Maint/Light Repair                 | 2                     | 6           | 4              |
|  | <b>Credit Hours</b>                           | <b>8</b>              | <b>21</b>   | <b>15</b>      |
| <b>Fifth Semester (Spring)</b>               |   |                       |             |                |
| AUT-113                                      | Automotive Servicing I                        | 0                     | 6           | 2              |
| AUT-231                                      | Man Trans/Axles/Drtrains                      | 2                     | 3           | 3              |
| COM-231 or<br>COM-120                        | Public Speaking or<br>Intro Interpersonal Com | 3                     | 0           | 3              |
| PSY-118                                      | Interpersonal Psychology                      | 3                     | 0           | 3              |
| ***  | Restricted Elective                           | 0-3                   | 0-20        | 2-4            |
|  | <b>Credit Hours</b>                           | <b>8-11</b>           | <b>9-29</b> | <b>13-15</b>   |
| <b>Sixth Semester (Summer)</b>               |   |                       |             |                |
| AUT-221                                      | Auto Transm/Transaxles                        | 2                     | 3           | 3              |
| ***  | Humanities/Fine Arts Elective                 | 3                     | 0           | 3              |
|  | <b>Credit Hours</b>                           | <b>5</b>              | <b>3</b>    | <b>6</b>       |
| Total Required Minimum Semester Hours Credit |   |                       |             | 69             |
| <b>Restricted Electives:</b>                 |   | <b>Class</b>          | <b>Lab</b>  | <b>Credit</b>  |
| ACC-120                                      | Prin of Financial Accounting                  | 3                     | 2           | 4              |
| ACC-149                                      | Intro to ACC Spreadsheets                     | 1                     | 3           | 2              |
| BUS-137                                      | Principles of Management                      | 3                     | 0           | 3              |
| BUS-153                                      | Human Resource Management                     | 3                     | 0           | 3              |
| BUS-255                                      | Org Behavior in Business                      | 3                     | 0           | 3              |
| LDD-112                                      | Intro Light-Duty Diesel                       | 2                     | 2           | 3              |
| LDD-181                                      | Ldd Fuel Systems                              | 2                     | 6           | 4              |
| WBL-112S                                     | Work-Based Learning I                         | 0                     | 20          | 2              |

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