

## AUTOMOTIVE SYSTEMS TECHNOLOGY DEGREE (A60160)

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 condition systems.

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.

### COURSE & HOUR REQUIREMENTS

Course Number & Name	Class Hours	Lab Hours	Credit Hours
<b>FALL SEMESTER</b>			
ACA 111 College Student Success	1	0	1
AUT 151 Brake Systems	2	3	3
AUT 151A Brake Systems Lab	0	3	1
TRN 110 Intro to Transport Tech	1	2	2
TRN 120 Basic Trans Electricity	4	3	5
TRN 170 PC Skills for Trans	1	2	2
<b>Total</b>	<b>9</b>	<b>13</b>	<b>14</b>
<b>SPRING SEMESTER</b>			
AUT 114 Safety and Emissions	1	2	2
AUT 116 Engine Repair	2	3	3
AUT 116A Engine Repair Lab	0	3	1
AUT 141 Suspension & Steering	2	3	3
AUT 141A Suspension & Steering Lab	0	3	1
*MAT 110 Mathematical Measurement & Lit.	2	2	3
*Humanities/Fine Arts Elective	3	0	3
<b>Total</b>	<b>10</b>	<b>16</b>	<b>16</b>
<b>SUMMER SEMESTER</b>			
AUT 181 Engine Performance I	2	3	3
AUT 181A Engine Performance I Lab	0	3	1
*COM 110 Introduction to Communication	3	0	3
TRN 140 Trans Climate Control	1	2	2
TRN 140A Trans Climate Control Lab	1	2	2
<b>Total</b>	<b>7</b>	<b>10</b>	<b>11</b>
<b>FALL SEMESTER</b>			
AUT 221 Auto Transm/Tranxales	2	3	3
AUT 221A Auto Transm/Tranxales Lab	0	3	1
*ENG 111 Writing and Inquiry	3	0	3
TRN 145 Adv. Trans Electronics	2	3	3
*Social/Behavioral Science Elective	3	0	3
<b>Total</b>	<b>10</b>	<b>9</b>	<b>13</b>
<b>SPRING SEMESTER</b>			
AUT 183 Engine Performance 2	2	6	4
AUT 231 Man Tran/Axles/Drtrains	2	3	3
AUT 231A Man Tran/Axles/Drtrains Lab	0	3	1
AUT 281 Adv Engine Performance	2	2	3
TRN 130 Intro to Sustainable Trans	2	2	3
<i>Choose one of the following:</i>			
WBL 111 Work-Based Learning I	0	10	1
AUT 213 Automotive Servicing 2	1	3	2
<b>Total</b>	<b>9/8</b>	<b>19/26</b>	<b>16/15</b>
<b>TOTAL SEMESTER CREDIT HOURS FOR DEGREE</b>			<b>65/69</b>

\*This course is a component of the general education requirements needed for graduation.

\*Students must select six (6) semester credit hours with one course from humanities/fine arts and one from social/behavioral sciences disciplines. See advisor for list of approved courses.

**NOTE:** Students are required to take ACA 111 in their first semester.

## AUTOMOTIVE SYSTEMS TECHNOLOGY DIPLOMA (D60160)

The Automotive Systems Technology curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field. Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains. Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

### COURSE & HOUR REQUIREMENTS

Course Number & Name	Class Hours	Lab Hours	Credit Hours
<b>FALL SEMESTER</b>			
ACA 111 College Student Success	1	0	1
AUT 151 Brake Systems	2	3	3
AUT 151A Brake Systems Lab	0	3	1
TRN 110 Intro to Transport Tech	1	2	2
TRN 120 Basic Trans Electricity	4	3	5
TRN 170 PC Skills for Trans	1	2	2
<b>Total</b>	<b>9</b>	<b>13</b>	<b>14</b>
<b>SPRING SEMESTER</b>			
AUT 114 Safety and Emissions	1	2	2
AUT 116 Engine Repair	2	3	3
AUT 116A Engine Repair Lab	0	3	1
AUT 141 Suspension & Steering	2	3	3
AUT 141A Suspension & Steering Lab	0	3	1
*MAT 110 Mathematical Measurement & Lit.	2	2	3
*Humanities/Fine Arts Elective	3	0	3
<b>Total</b>	<b>10</b>	<b>16</b>	<b>16</b>
<b>SUMMER SEMESTER</b>			
AUT 181 Engine Performance I	2	3	3
AUT 181A Engine Performance I Lab	0	3	1
*COM 110 Introduction to Communication	3	0	3
TRN 140 Trans Climate Control	1	2	2
TRN 140A Trans Climate Control Lab	1	2	2
<b>Total</b>	<b>7</b>	<b>10</b>	<b>11</b>
<b>TOTAL SEMESTER CREDIT HOURS FOR DIPLOMA</b>			<b>41</b>

\*This course is a component of the general education requirements needed for graduation.

\*Students must select three (3) semester credit hours from humanities/fine arts. See advisor for list of approved courses.

**NOTE:** Students are required to take ACA 111 in their first semester.

## AUTOMOTIVE TECHNOLOGY CERTIFICATE (C60160A)

This certificate prepare individuals to work as entry level automotive technicians which includes preparation for the ASE exam in Engine Repair and certifications in safety and emissions.

### COURSE & HOUR REQUIREMENTS

Class Title	Class Hours	Lab Hours	Credit Hours
AUT 116 Engine Repair	2	3	3
AUT 116A Engine Repair Lab	0	3	1
AUT 114 Safety and Emissions	1	2	2
TRN 110 Intro to Transport Tech	1	2	2
TRN 120 Basic Trans Electricity	4	3	5
TRN 170 PC Skills for Tran	1	2	2
<b>TOTAL SEMESTER CREDIT HOURS FOR CERTIFICATE</b>			<b>15</b>

**NOTE:** This certificate can be completed in 2 to 4 semesters.