

## **Mechanical Technology**

*Associate in Applied Science- 61 credit hours*

**Purpose:** The intent of the AAS curriculum is to allow students maximum flexibility in the selection of subject matter. Students may pursue a curriculum focus in automotive technology, operation or maintenance of heavy equipment, engine specialist (gasoline and diesel) or other combinations of courses to meet their interests and career objectives. Students must complete four semesters as prescribed within the chosen technology.

**Career Opportunities:** Graduates of this program will have a multi-faceted background enabling them to pursue employment in the field of their choice.

**Program Educational Outcomes:** Upon completion of the Associate in Applied Science Degree in the Mechanical Technology program, the graduate is prepared to:

1. Demonstrate safe work habits in compliance with industry standards set forth by the mechanical technology area of their concentration.
2. Qualify for employment in a variety of areas of mechanical technology, depending on his/her areas of study.

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<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
BUS	Business Elective	3
DRG124	Print Reading, Sketching, and Intro to CAD	3
ENG101	College Composition	3
ENG210	Technical Writing	3
FYE100	First Year Experience	1
MAT106	College Mathematics for Technologies	3
Elective	Math/Science (above the 100 level)	3
Elective	Social Science Elective	3
	<b>Total General Education</b>	<b>22</b>
MET100	General Service	3
MET102	Intro to OSHA Safety/First Aid/CPR	3
MET103	Principles of Vehicular Electronics I	2
MET107	Introduction to Engines	2
WEL109	Introductory Welding	2
	<b>Total Mechanical Core</b>	<b>12</b>
MET or WEL	Mechanical Technology Electives-any MET and/or WEL designation**	<b>27</b>
	<b>Total</b>	<b>27</b>

**\*\* Students must obtain a certificate in Welding Technology to be eligible for the WEL electives to apply an A.A.S. in Mechanical Technology.**

**Mechanical Technology**  
*Certificate- 32 credit hours*

**Purpose:** The intent of the Mechanical Technology certificate curriculum is to allow students maximum flexibility in the selection of subject matter. Students must complete two semesters as prescribed within the chosen technology.

**Career Opportunities:** Graduates of this program will have a multi-faceted background enabling them to pursue employment in the field of their choice.

**Program Educational Outcomes:** Upon completion of the certificate curriculum in the Mechanical Technology certificate program, the graduate is prepared to:

1. Demonstrate safe work habits in compliance with industry standards set forth by the mechanical technology area of their concentration.
2. Qualify for employment in a variety of areas of mechanical technology, depending on their areas of study.

**Mechanical Technology**  
*Certificate - 32 credit hours*

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
<b>Semester 1</b>		
FYE100	First Year Experience	1
MET	Mechanical Technology Electives any MET designation	6
MET100	General Service	3
MET102	Introduction to OSHA Safety/First Aid/CPR	3
MET103	Principles of Vehicular Electronics	2
WEL109	Introductory Welding	2
	<b>Total</b>	<b>17</b>
<b>Semester 2</b>		
ENG101	College Composition	3
MAT106	College Mathematics for Technologies	3
MET	Mechanical Technology Electives-any MET designation	7
MET107	Introduction to Engine Operation	2
	<b>Total</b>	<b>15</b>

## **Mechanical Technology with Specialization in Passenger Vehicle**

*Associate in Applied Science - 66 credit hours*

**Purpose:** The Mechanical Technology with Specialization in Passenger Vehicle program prepares students for success as vehicle service mechanics. This program offers training in the testing, diagnosis, and servicing of passenger and light commercial motor vehicles. The program enables students to develop skills needed for the diagnosis as well as repair and maintenance of vehicle systems to include brakes, suspension and steering, electrical/electronics, engine performance, drive trains, heating and air conditioning, and all aspects of engine work.

In addition to classroom study where background knowledge is acquired, shop projects involving work on vehicles provide students with practical experiences where emphasis is placed on developing competence with electronic and other test equipment and the completion of work in accordance with automotive industry standards.

**Career Opportunities:** The automotive service industry offers a wide variety of career opportunities with excellent chances of advancement. Some of the occupations students may pursue in the automotive service field include: general service technician, specialty technician, diagnostic technician, automotive machinist, service writer/advisor, service manager, parts counter attendant, parts manager, and manufacturer's service and/or parts representative.

**Program Educational Outcomes:** Upon completion of this Mechanical Technologies program, the graduate is prepared to:

1. Demonstrate safe work habits in compliance with industry standards set forth by the mechanical technology area of their concentration.
2. Understand and apply principles of testing, diagnosis, and servicing of passenger and light commercial motor vehicles.
3. Diagnose, repair, and maintain electrical and ignition systems, brakes, drive trains, steering and suspension, and all aspects of engine work.
4. Apply theoretical knowledge of electronic and other test equipment in practical settings.

5. Complete tasks in accordance with industry and NATEF/ASE certification standards.
6. Qualify for employment in a variety of positions, including general service technician, specialty technician, diagnostic technician, automotive machinist, service writer/advisor, service manager parts, counter attendant, parts manager and manufacturer's service and/or parts representative.

**Mechanical Technology with Specialization in Passenger Vehicle**  
*Associate in Applied Science - 66 credit hours*

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
<b>Semester 1</b>		
ENG101	College Composition	3
FYE100	First Year Experience	1
MET103	Principles of Vehicular Electronics	2
MET114	Vehicular Electrical Systems I	1
MET115	Vehicular Electrical Systems II	2
MET116	Braking Systems I	1
MET117	Braking Systems II	2
MET120	Transmission and Drive Train	3
WEL109	Introductory Welding	2
	<b>Total</b>	<b>17</b>
<b>Semester 2</b>		
MAT106	College Mathematics for Technologies	3
MET107	Introduction to Engines Operation	2
MET108	Principles of Vehicular Performance	2
MET112	Engine Performance & Diagnostics I	1
MET113	Engine Performance & Diagnostics II	2
MET118	Steering and Suspension I	1
MET119	Steering and Suspension II	2
MET121	Heating & Air Conditioning Systems	3
MET123	Maine State Inspection	1
	<b>Total</b>	<b>17</b>
<b>Semester 3</b>		
ENG210	Technical Writing	3
Elective	Business Elective	3
Elective	Math/Science (above the 100 level)	3
MET129	Introduction to Engine Overhaul	3
MET131	Engine Overhaul Lab	4
MET132	Diesel Engine Fuel Systems	1
	<b>Total</b>	<b>17</b>
<b>Semester 4</b>		
DRG124	Print Reading, Sketching, and Intro to CAD	3

MET142	High Performance Engines	1
MET144	Engine Repair and Performance	3
MET145	Advanced Engine Repair Lab	5
Elective	Social Science Elective (PSY101 or SOC 101 or SOC102 )	3
	<b>Total</b>	<b>15</b>