

# Aerospace Academy

## 1st Year Program of Studies 8 courses with total of 21 credit hours

Fall Semester	Credit
AERM 1201 <b>Introduction to Aviation*</b> <i>*10-hr OSHA</i> <i>An overview of aviation maintenance.</i>	2
AERM 1315 <b>Aviation Science</b> <i>Fundamentals of mathematics, physics &amp; drawing as they apply to aircraft principles &amp; operations.</i>	3
AERM 1303 <b>Shop Practice</b> <i>Introduction to the correct use of hand tools and equipment &amp; precision measurement; identification of aircraft hardware; &amp; fabrication of fluid lines and tubing.</i>	3
<b>Fall Semester Total</b>	<b>8</b>

Spring Semester	Credit
AERM 1208 <b>Federal Aviation Regulations</b> <i>A course in the use &amp; understanding of the FAA &amp; aircraft manufacturer's publications, forms &amp; records.</i>	2
AERM 1205 <b>Weight &amp; Balance</b> <i>An introduction to FAA required subjects relating to weighing of aircraft, performance of weight &amp; balance calculations, &amp; appropriate maintenance of record entries.</i>	2
AERM 1303 <b>Ground Operations</b> <i>An introduction course in fuels, servicing methods and procedures, aircraft movement, securing and operations of aircraft, external power equipment, aircraft cleaning, and corrosion control.</i>	3
POFT 1220 <b>Job Search Skills</b> <i>A course to provide students with necessary skills to seek &amp; obtain employment in business &amp; industry.</i>	2
<b>Spring Semester Total</b>	<b>9</b>

Summer Semester	Credit
AERM 2486 <b>Internship: Aircraft Mechanics &amp; Aircraft Maintenance Technology/Technician</b> <i>Practical, general workplace training supported by an individualized learning plan.</i>	4
<b>Summer Total</b>	<b>4</b>
<b>Year 1 Program Total</b>	<b>21</b>

**Occupational Skills Award  
Aircraft Technology (OSA)**

(5 courses, 13 hours)

## 2nd Year Program of Studies 4 courses with total of 11 or 12 credit hours

Fall Semester	Credit
AERM 1414 <b>Basic Electricity</b> <i>A study of aircraft electrical systems and their requirements.</i>	4
AERM 1254 <b>Aircraft Composite</b> <i>A study of the inspection &amp; repair of composite, Fiberglass, honeycomb, and laminated structural materials.</i>	2
<b>Fall Semester Total</b>	<b>6</b>
Spring Semester	Credit

### Aircraft Structures Mechanic

AERM 1241 <b>Wood, Fabric &amp; Finishes</b> <i>A course in the use &amp; care of various covering materials, finishes, &amp; wood structures including approved methods and procedures.</i>	2
POFT 1220 <b>Aircraft Sheet Metal</b> <i>A course in inspection &amp; repair of sheet metal structures.</i>	3
<b>Spring Semester Total</b>	<b>5</b>
<b>Year 2 Program Total</b>	<b>11</b>

OR

### Aircraft Turbine Mechanic

AERM 1351 <b>Aircraft Turbine Engine Theory</b> <i>Theory, history &amp; servicing of turbine engines.</i>	3
AERM 2351 <b>Aircraft Turbine Engine Overhaul</b> <i>Topics address inspection, disassembly, re-assembly &amp; replacement of gas turbine engines, sections, &amp; components as well as operational troubleshooting &amp; analysis.</i>	3
<b>Summer Total</b>	<b>6</b>
<b>Year 2 Program Total</b>	<b>12</b>

## Level I Certificate of Completion

Aircraft  
Structures  
Mechanic

Or

Aircraft  
Turbine  
Mechanic

Two Year Program of Studies: 12 Courses totaling 32 (Structures) or 33 (Turbine) credit hours

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# Aerospace Academy

## Level I Certificate of Completion Aircraft Structures Mechanic

### ASSOCIATE OF APPLIED SCIENCES

#### Aircraft Technician Airframe

Semester 1	Credit
ENGL 1301 Composition I or other*	3
ENGL 1301 Contemporary Mathematics II or other*	3
ENGL 1301 Composition I or other*	3
ENGL 1301 Composition I or other*	3
ENGL 1301 Composition I or other*	3
<b>1st Semester Total</b>	<b>15</b>
Semester 2	Credit
AERM 1205 Weight & Balance	2
AERM 1208 Federal Aviation Regulations	2
AERM 1310 Ground Operations	3
AERM 1303 Shop Practices	3
AERM 1315 Aviation Science	3
AERM 1414 Basic Electricity	4
AERM 1241 Wood, Fabric & Finishes	2
<b>2nd Semester Total</b>	<b>19</b>
Semester 3	Credit
AERM 1243 Instruments & Navigation/Communication	2
AERM 2231 Airframe Inspection	2
AERM 1345 Aircraft Electrical Systems	3
<b>3rd Semester Total</b>	<b>7</b>
Semester 4	Credit
AERM 1449 Hydraulic, Pneumatic, & Fuel Systems	4
AERM 1350 Landing Gear Systems	3
AERM 1254 Aircraft Composites	2
AERM 1253 Aircraft Welding	2
AERM 1352 Aircraft Sheet Metal	3
AERM 1347 Aircraft Auxiliary Systems	3
AERM 2233 Assembly & Rigging	2
<b>4th Semester Total</b>	<b>19</b>
<b>Program Total</b>	<b>60</b>

## Level I Certificate of Completion Aircraft Turbine Mechanic

### ASSOCIATE OF APPLIED SCIENCES

#### Aircraft Technician Powerplant

Semester 1	Credit
ENGL 1301 Composition I or other*	3
MATH 1333 Contemporary Mathematics II or other*	3
PHYS 1305 Introductory to Physics I Lecture or other*	3
ECON 1301 Introduction to Economics or other*	3
ARTS 2326 Sculpture I or other*	3
<b>1st Semester Total</b>	<b>15</b>
Semester 2	Credit
AERM 1205 Weight & Balance	2
AERM 1208 Federal Aviation Regulations	2
AERM 1310 Ground Operations	3
AERM 1303 Shop Practices	3
AERM 1315 Aviation Science	3
AERM 1414 Basic Electricity	4
AERM 1444 Aircraft Reciprocating Engines	4
<b>2nd Semester Total</b>	<b>21</b>
Semester 3	Credit
AERM 2352 Aircraft Powerplant Inspection	3
<b>3rd Semester Total</b>	<b>3</b>
Semester 4	Credit
AERM 2547 Aircraft Reciprocating Overhaul	5
AERM 1340 Aircraft Propellers	3
AERM 1351 Aircraft Turbine Engine Theory	3
AERM 2351 Aircraft Turbine Engine Overhaul	3
AERM 1456 Powerplant Electrical	4
AERM 1357 Fuel Metering & Induction Systems	3
<b>4th Semester Total</b>	<b>21</b>
<b>Program Total</b>	<b>60</b>

DC/AA: 24

Total AAS Hours: 60

Hours needed Post DC/AA: 36

General Academics: 15

Specific Hours: 21

DC/AA: 23

Total AAS Hours: 60

Hours needed Post DC/AA: 37

General Academics: 15

Specific Hours: 22