

## Technical and Vocational Programs

### **A 60 20 0      Aviation Systems Technology – Associate in Applied Science**

### **D 60 20 0 AM   Airframe Maintenance – Diploma**

### **D 60 20 0 PP   Powerplant Maintenance – Diploma**

**(Offered only at the Currituck Regional Aviation and Technical Training Center)**

#### **CONCENTRATION OVERVIEW**

The Aviation Systems Technology provides individuals with the knowledge and skills to qualify for an aircraft mechanic's certificate with airframe and/or powerplant ratings. The curriculum is approved by the Federal Aviation Administration (FAA) under 14 CFR Part 147, which governs aviation maintenance schools. Course work includes aviation mathematics, FAA regulations, basic electricity, aircraft drawings; aircraft structures, systems, and components; aircraft engines, theory, systems, and components; and engine inspections and maintenance.



Upon completion of this concentration, graduates will be able to find employment opportunities as entry-level mechanics with air carriers, manufacturers, repair stations, fixed base operators, flight schools, and government aviation operations.

#### **Student Learning Outcomes**

1. Upon completion of general rating class, AMT 105, students will be able to properly understand and identify the Federal Aviation Regulations (FAR) applicable to aviation mechanics.
2. Upon completion of the airframes rating AMT modules, students will be able to use electrical meters, install structural components and accomplish tasks/projects utilizing aircraft publications.
3. Upon completion of the powerplant rating module, students will be able to utilize electrical meters and equipment to properly time an engine's magnetos in accordance with aircraft specifications and publications.
4. Upon completion of airframe rating AMT modules, student will be able to read blueprints, troubleshoot and repair landing gear systems in accordance with troubleshooting logic trees and manufactures service and maintenance manuals and FARS.

**Partnership:** N/A

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## A 60 20 0 Aviation Systems Technology – A.A.S.

(Offered only at the Currituck Regional Aviation and Technical Training Center)

First Year Fall Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 110 Aviation Maintenance- General		10	15		25	15
ENG 111 Writing and Inquiry	Pre-Requisites: ENG 090 and RED 090, or ENG 095, or DRE 098, or appropriate placement.	3			3	3
<b>TOTAL SEMESTER HOURS</b>		<b>13</b>	<b>15</b>		<b>28</b>	<b>18</b>
First Year Spring Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 120 Airframe Maintenance I	Pre-Requisites: AVI 110	6	18		24	12
CIS 111 Basic PC Literacy		1	2		3	2
MAT 110 Math Measurement & Literacy	Pre-Requisites: DMA 010, DMA 020, and DMA 030	2	2		4	3
<b>TOTAL SEMESTER HOURS</b>		<b>9</b>	<b>22</b>		<b>31</b>	<b>17</b>
First Year Summer Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 130 Airframe Maintenance II	Pre-Requisites: AVI 110	6	9		15	9
ENG 112 Writing/Research in the Disciplines or ENG 114 Professional Research & Reporting	Pre-Requisites: ENG 111	3			3	3
<b>TOTAL SEMESTER HOURS</b>		<b>9</b>	<b>9</b>		<b>18</b>	<b>12</b>
Second Year Fall Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 230 Airframe Maintenance III	Pre-Requisites: AVI 110	4	9		13	7
AVI 240 Powerplant Maintenance I	Pre-Requisites: AVI 110	3	9		12	6
HUM 115 Critical Thinking OR PHI 240 Introduction to Ethics	Pre-Requisites for HUM 115: ENG 090 and RED 090, or ENG 095, or DRE 098, or appropriate placement.  Pre-Requisites for PHI 240: ENG 111	3			3	3
<b>TOTAL SEMESTER HOURS</b>		<b>10</b>	<b>18</b>		<b>28</b>	<b>16</b>

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Second Year Spring Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 250 Powerplant Maintenance II	Pre-Requisites: AVI 110	10	15		25	15
WBL 110 World of Work OR WBL 111 Work-Based Learning I		1		0-10	1-10	1
<b>TOTAL SEMESTER HOURS</b>		<b>11</b>	<b>15</b>	0-10	<b>26-35</b>	<b>16</b>
Second Year Summer Semester Course Number and Title	Pre-Requisites and Co-Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 260 Powerplant Maintenance III	Pre-Requisites: AVI 110	5	12		17	9
PSY 150 General Psychology	Pre-Requisites: ENG 080 and RED 080, or ENG 085, or DRE 097, or appropriate placement.	3			3	3
<b>TOTAL SEMESTER HOURS</b>		<b>8</b>	<b>12</b>		<b>20</b>	<b>12</b>
<b>TOTAL SEMESTER HOURS REQUIRED FOR ASSOCIATE DEGREE</b>						<b>91</b>

## D 60 20 0 AM Airframe Maintenance - Diploma

(Offered only at the Currituck Regional Aviation and Technical Training Center)

First Year Fall Semester Course Number and Title	Pre-Requisites and Co- Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 110 Aviation Maintenance – General		10	15		25	15
ENG 111 Writing and Inquiry	Pre-Requisites: ENG 090 and RED 090, or ENG 095, or DRE 098, or appropriate placement	3			3	3
<b>TOTAL SEMESTER HOURS</b>		<b>3</b>			<b>3</b>	<b>18</b>
First Year Spring Semester Course Number and Title	Pre-Requisites and Co- Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 120 Airframe Maintenance I	Pre-Requisites: AVI 110	6	18		24	12
MAT 110 Mathematical Measurement	Pre-Requisites: DMA 010, 020, 030	2	2		4	3
<b>TOTAL SEMESTER HOURS</b>		<b>8</b>	<b>20</b>		<b>28</b>	<b>15</b>
First Year Summer Semester Course Number and Title	Pre-Requisites and Co- Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 130 Airframe Maintenance II	Pre-Requisites: AVI 110	6	9		15	9
<b>TOTAL SEMESTER HOURS</b>		<b>6</b>	<b>9</b>		<b>15</b>	<b>9</b>
Second Year Fall Semester Course Number and Title	Pre-Requisites and Co- Requisites	Class Hours	Lab Hours	Clinical Hours	Total Contact Hours	Total Credit Hours
AVI 230 Airframe Maintenance III	Pre-Requisites: AVI 110	4	9		13	7
<b>TOTAL SEMESTER HOURS</b>		<b>4</b>	<b>9</b>		<b>13</b>	<b>7</b>
<b>TOTAL SEMESTER HOURS REQUIRED FOR DIPLOMA</b>						<b>49</b>

**D 60 20 0 PP Powerplant Maintenance - Diploma**  
 (Offered only at the Currituck Regional Aviation and Technical Training Center)

<b>First Year Fall Semester</b>	<b>Pre-Requisites and Co-Requisites</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Clinical Hours</b>	<b>Total Contact Hours</b>	<b>Total Credit Hours</b>
<b>Course Number and Title</b>						
AVI 110 Aviation Maintenance – General		10	15		25	15
ENG 111 Writing and Inquiry	Pre-Requisites: ENG 090 and RED 090, or ENG 095, or DRE 098, or appropriate placement	3			3	3
<b>TOTAL SEMESTER HOURS</b>		<b>3</b>			<b>3</b>	<b>18</b>
<b>Second Year Fall Semester</b>	<b>Pre-Requisites and Co-Requisites</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Clinical Hours</b>	<b>Total Contact Hours</b>	<b>Total Credit Hours</b>
<b>Course Number and Title</b>						
AVI 240 Powerplant Maintenance I	Pre-Requisites: AVI 110	3	9		12	6
		3	9		12	6
<b>Spring Semester</b>	<b>Pre-Requisites and Co-Requisites</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Clinical Hours</b>	<b>Total Contact Hours</b>	<b>Total Credit Hours</b>
<b>Course Number and Title</b>						
AVI 250 Powerplant Maintenance II	Pre-Requisites: AVI 110	10	15		25	15
MAT 110 Mathematical Measurement	Pre-Requisites: DMA 010, 020, 030	2	2		4	3
<b>TOTAL SEMESTER HOURS</b>		<b>12</b>	<b>17</b>		<b>29</b>	<b>18</b>
<b>Summer Semester</b>	<b>Pre-Requisites and Co-Requisites</b>	<b>Class Hours</b>	<b>Lab Hours</b>	<b>Clinical Hours</b>	<b>Total Contact Hours</b>	<b>Total Credit Hours</b>
<b>Course Number and Title</b>						
AVI 260 Powerplant Maintenance III	Pre-Requisites: AVI 110	5	12		17	9
<b>TOTAL SEMESTER HOURS</b>		<b>5</b>	<b>12</b>		<b>17</b>	<b>9</b>
<b>TOTAL SEMESTER HOURS REQUIRED FOR DIPLOMA</b>						<b>51</b>