AVIATION MAINTENANCE TECHNOLOGY (DISTANCE EDUCATION PROGRAM)

Aviation Maintenance Technology

Award: Associate of Applied Science Degree
Length: Five semesters
Additional Program Information: https://www.brcc.edu/academics/programs/aviation/
Potential Additional Funding Information: https://www.brcc.edu/g3/

Possible occupations for graduates are: entry-level positions in the maintenance, repair, overhaul and modification of aircraft (following Federal Aviation Administration certification as mechanic with airframe and powerplant ratings). Students who earn the Associate of Applied Science Degree in Aviation Maintenance Technology are additionally better qualified for positions in the industry as lead mechanics, shop foreman, and directors of maintenance.

Students who wish to pursue Federal Aviation Administration (FAA) Certification as a mechanic with either an airframe, powerplant, or airframe and powerplant rating may choose from three options. Students who wish to become light sport aircraft pilots or mechanics have an additional option.

The Aviation Maintenance Technology (Airframe and Powerplant) Associate of Applied Science Degree provides students with a background to qualify for the Federal Aviation Administration (FAA) mechanic's certificate with both airframe and powerplant ratings, along with the general education skills to enhance their technical skills.

AMT 227- Airframe Inspections and AMT 245- Powerplant Inspections are capstone classes and cannot be taken online. Furthermore, AMT distance learning students **must** contact the AMT Program Head or an Academic Advisor prior to requesting any Aviation Maintenance Technology lab classes for guidance in enrolling.

Required Courses
Curriculum

Prerequisites		**Credit Hours**
MTH 111	Basic Technical Mathematics [1]	3
Shenandoah Valley Regional Airport Security Screening		
	Credit Hours	**3**
First Semester		
SDV (https://catalog.brcc.edu/programs-study/sdv/)	Student Development	1
AMT 103	Basic Electricity	2
AMT 105	Aviation Science for Mechanics	1
AMT 107	Aircraft Drawing	2
AMT 109	Materials & Processes	2
AMT 111	Federal Aviation Regulations	2
AMT 261	Aircraft Electrical Systems	2
AMT 263	Aircraft Fuel, Fire & Instrument Systems	2
Select one of the following:		3
ENG 111	College Composition I	
ENG 115	Technical Writing	
	Credit Hours	**17**
Second Semester		
AMT 223	Metallic Structures	2
AMT 225	Assembly & Rigging	1
AMT 231	Aircraft Landing Gear Systems	2
AMT 241	Reciprocating Engines	2
AMT 251	Lubrication Systems & Propellers	2
AMT 253	Ignition & Starting Systems	1
Social and Behavioral Science Elective (https://catalog.brcc.edu/programs-study/general-education-aas/#social)		3
	Credit Hours	**13**

Third Semester		
AMT 221	Non-Metallic Structures	2
AMT 233	Communication/Navigation & Control Systems	2
AMT 243	Turbine Engines	2
AMT 255	Fuel Metering Systems	2
Literature/Humanities/Fine Arts (https://catalog.brcc.edu/programs-study/general-education-aas/#literature)		3
General Education Elective (https://catalog.brcc.edu/programs-study/general-education-aas/)		3
	Credit Hours	**14**
Fourth Semester		
AMT 104	Aviation Science for Mechanics Lab I	1
AMT 106	Aviation Science for Mechanics Lab II	1
AMT 110	Materials & Processes Lab	1
AMT 222	Non-Metallic Structures & Covering Lab	2
AMT 224	Metallic Structures & Finishes Lab	2
AMT 226	Assembly and Rigging Lab	1
AMT 228	Airframe Inspections Lab	1
AMT 232	Aircraft Landing Gear Systems Lab	1
AMT 234	Communication/Navigation & Control Systems Lab	1
AMT 262	Aircraft Electrical Systems Lab	1
AMT 264	Aircraft Fuel, Fire, & Instrument Systems Lab	1
	Credit Hours	**13**
Fifth Semester		
AMT 227	Airframe Inspections	1
AMT 242	Reciprocating Engines Lab	1
AMT 244	Turbine Engines Lab	1
AMT 245	Powerplant Inspections	1
AMT 246	Powerplant Inspections Lab	1
AMT 252	Lubrication Systems & Propellers Lab	1
AMT 254	Ignition & Starting System Lab	1
AMT 256	Fuel Metering Systems Lab	1
	Credit Hours	**8**
	Total Credit Hours	**68**

[1] MTH 111 is required to be completed before entry into the AMT Certificate program in either Airframe Maintenance, Powerplant Maintenance or the A.A.S. degree in Aviation Maintenance Technology. MTH 111 is recommended; any MTH except MTH 132 will be accepted.

Certificates
Airframe Maintenance (Distance Education Program)

Award: Certificate
Potential Additional Funding Information: https://www.brcc.edu/g3/

Prerequisites		**Credit Hours**
MTH 111	Basic Technical Mathematics [1]	3
Shenandoah Valley Regional Airport Security Screening		
	Credit Hours	**3**
First Semester		
AMT 103	Basic Electricity	2
AMT 105	Aviation Science for Mechanics	1
AMT 107	Aircraft Drawing	2
AMT 109	Materials & Processes	2
AMT 111	Federal Aviation Regulations	2
AMT 261	Aircraft Electrical Systems	2

AMT 263	Aircraft Fuel, Fire & Instrument Systems	2
Select one of the following:		3
ENG 111	College Composition I	
ENG 115	Technical Writing	
	Credit Hours	**16**
Second Semester		
AMT 223	Metallic Structures	2
AMT 225	Assembly & Rigging	1
AMT 231	Aircraft Landing Gear Systems	2
	Credit Hours	**5**
Third Semester		
AMT 221	Non-Metallic Structures	2
AMT 224	Metallic Structures & Finishes Lab	2
AMT 226	Assembly and Rigging Lab	1
AMT 227	Airframe Inspections	1
AMT 233	Communication/Navigation & Control Systems	2
	Credit Hours	**8**
Fourth Semester		
AMT 104	Aviation Science for Mechanics Lab I	1
AMT 106	Aviation Science for Mechanics Lab II	1
AMT 110	Materials & Processes Lab	1
AMT 222	Non-Metallic Structures & Covering Lab	2
AMT 228	Airframe Inspections Lab	1
AMT 232	Aircraft Landing Gear Systems Lab	1
AMT 234	Communication/Navigation & Control Systems Lab	1
AMT 262	Aircraft Electrical Systems Lab	1
AMT 264	Aircraft Fuel, Fire, & Instrument Systems Lab	1
	Credit Hours	**10**
	Total Credit Hours	**42**

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Powerplant Maintenance (Distance Education Program)

Award: Certificate
Potential Additional Funding Information: https://www.brcc.edu/g3/

Prerequisites		**Credit Hours**
MTH 111	Basic Technical Mathematics [1]	3
Shenandoah Valley Regional Airport Security Screening		
	Credit Hours	**3**
First Semester		
AMT 103	Basic Electricity	2
AMT 105	Aviation Science for Mechanics	1
AMT 107	Aircraft Drawing	2
AMT 109	Materials & Processes	2
AMT 111	Federal Aviation Regulations	2
AMT 261	Aircraft Electrical Systems	2
AMT 263	Aircraft Fuel, Fire & Instrument Systems	2
Select one of the following:		3
ENG 111	College Composition I	

ENG 115	Technical Writing	
	Credit Hours	**16**
Second Semester		
AMT 241	Reciprocating Engines	2
AMT 251	Lubrication Systems & Propellers	2
AMT 253	Ignition & Starting Systems	1
	Credit Hours	**5**
Third Semester		
AMT 243	Turbine Engines	2
AMT 245	Powerplant Inspections	1
AMT 255	Fuel Metering Systems	2
	Credit Hours	**5**
Fourth Semester		
AMT 104	Aviation Science for Mechanics Lab I	1
AMT 106	Aviation Science for Mechanics Lab II	1
AMT 110	Materials & Processes Lab	1
AMT 242	Reciprocating Engines Lab	1
AMT 244	Turbine Engines Lab	1
AMT 246	Powerplant Inspections Lab	1
AMT 252	Lubrication Systems & Propellers Lab	1
AMT 254	Ignition & Starting System Lab	1
AMT 256	Fuel Metering Systems Lab	1
AMT 262	Aircraft Electrical Systems Lab	1
AMT 264	Aircraft Fuel, Fire, & Instrument Systems Lab	1
	Credit Hours	**11**
	Total Credit Hours	**40**

[1] MTH 111 is required to be completed before entry into the AMT Certificate program in either Airframe Maintenance, Power plant Maintenance or the A.A.S. degree in Aviation Maintenance Technology. MTH 111 is recommended; any MTH except MTH 132 will be accepted.