

Aviation Systems Technology (A60200)

The Official Program Description registered with the NC Community College System:

This curriculum is designed to provide individuals with the basic aircraft knowledge who intend to seek a career in Aviation Systems Technology. It prepares individuals with the necessary skills for the Federal Aviation Administration written, oral, and practical powerplant and airframe examinations.

Course work includes all the systems and subsystems related to the powerplant and airframe as required by the Federal Aviation Administration Regulations Part 147.

Graduates of the curriculum should qualify for a powerplant and an airframe license. Employment opportunities exist with fixed base operators and manufacturers.

Program Learning Outcomes

Upon satisfactory completion of the Aviation Systems Technology program of study the student will be able to:

- Inspect, troubleshoot, service and repair all systems of the airframe to include; nonmetallic structures, sheet metal structures, wood structures, fabric coverings, communication and navigation systems, electrical systems, hydraulic and pneumatic systems, landing gear systems, position and warning systems, fuel systems, instrument systems, cabin atmosphere control systems, ice and rain control systems, and fire protection systems.
- Inspect, troubleshoot, service and repair all systems of the powerplant to include; reciprocating and turbine engines, auxiliary power units, instruments, fire protection systems, electrical systems, lubrication systems, fuel systems, ignition and starting systems, fuel metering systems, induction systems, cooling systems, exhaust and reverser systems, and propeller and unducted fans.
- Perform aircraft weight and balance, major and minor repairs and alterations, cleaning and corrosion control, and ground operations.
- Interpret and apply Federal Aviation Administration Regulations, airworthiness directives, and maintenance publications.
- Maintain airframe and powerplant maintenance forms and records.
- Take the Federal Aviation Administration General, Airframe and powerplant written, oral and practical exams and attain a mechanics certificate with both airframe and powerplant ratings.

Degree Awarded

The Associate of Applied Science Degree-Aviation Systems Technology is awarded by the College upon completion of this program.

Note

Students are required to purchase tools and pay about \$770 for FAA exams. Costs for the tools are available by calling an Aviation Systems instructor at (919) 735-5151, ext. 357, 305, or 304.

For More Information

The Aviation Systems Technology program is in the Applied Technology Division. For more information, call (919) 735-5151, ext. 357, 304, or 305 or visit us at our web site at <http://www.waynecc.edu/aviation>.

Admissions

- A high school diploma or equivalent is required.

- A placement test in English, mathematics, reading and computer skills are required to determine entry-level courses that match individual needs.

First Step to Enroll:

Call the Admissions and Records Office at (919) 735-5151, ext. 238.

		Contact Hours	Semester Credit Hours
FIRST SEMESTER			
AVI	110 AVIATION MAINTENANCE - GENERAL.....		15
AMT	101 Mechanic Privileges & Limitations.....	10	
AMT	102 Aviation Physics.....	30	
AMT	103 Basic Electricity.....	80	
AMT	104 Aircraft Drawings.....	30	
AMT	105 Maint. Forms & Records.....	25	
AMT	106 Maint. Publications.....	25	
AMT	107 Materials and Processes.....	80	
AMT	108 Fluid Lines and Fittings.....	30	
AMT	109 Weight and Balance.....	35	
AMT	110 Cleaning and Corrosion Control.....	25	
AMT	111 Ground Operations and Servicing.....	30	
ACA	111 College Student Success....	1	1
MAT	110 Mathematical Measurements	4	3
			19
SECOND SEMESTER			
AVI	120 AIRFRAME MAINTENANCE I		12
AMT	201 Aircraft Welding.....	45	
AMT	202 Aircraft Non-Metallic Structures.....	40	
AMT	203 Aircraft Sheet Metal Structures.....	130	
AMT	204 Wood Structures, Covering & Finishes.....	50	
AMT	205 Assembly and Rigging.....	75	
		Contact Hours	Semester Credit Hours
AMT	213 Cabin Atmosphere Control Systems.....	55	
ENG	111 Expository Writing.....	3	3
			15
SUMMER TERM			
AVI	130 AIRFRAME MAINTENANCE II		9
AMT	207 Aircraft Electrical Systems..	85	
AMT	208 Hydraulic & Pneumatic Power Systems.....	60	
AMT	209 Aircraft Landing Gear Systems.....	55	
AMT	210 Position & Warning Systems.....	25	
AMT	211 Aircraft Fuel Systems.....	25	
ENG	114 Professional Research & Reporting.....	3	3
			12
THIRD SEMESTER			
AVI	230 AIRFRAME MAINTENANCE III.....		7

AMT	206	Communication and Navigation Systems	30	
AMT	212	Aircraft Instrument Systems	25	
AMT	214	Ice & Rain Control Systems	20	
AMT	215	Fire Protection Systems.....	20	
AMT	216	Airframe Inspection.....	75	
AVI	240	POWERPLANT MAINTENANCE I.....		6
AMT	301	Reciprocating Engines.....	145	
AMT	302	Turbine Engines.....	75	
AMT	303	Auxiliary Power Units.....	10	
		Social/Behavioral Science Elective.....	3	3
				16
FOURTH SEMESTER				
AVI	250	POWERPLANT MAINTENANCE II.....		15
AMT	304	Engine Instruments.....	35	
AMT	305	Engine Fire Protection Systems	35	
AMT	306	Engine Electrical Systems ...	75	
AMT	307	Lubrication Systems.....	60	
AMT	308	Engine Fuel Systems.....	35	
AMT	309	Ignition & Starting Systems..	75	
AMT	310	Fuel Metering Systems	85	
HUM	110	Technology and Society.....	3	3
				18
SUMMER TERM				
AVI	260	POWERPLANT MAINTENANCE III.....		9
AMT	311	Induction & Airframe Systems	25	
AMT	312	Engining Cooling Systems...	25	
AMT	313	Engine Exhaust & Reverser Systems.....	30	
AMT	314	Propellers & Unducted Fans	80	
AMT	315	Engine Inspection	90	
				9
		Total Hours		89