

Transportation, Distribution & Logistics Cluster

Aerospace Maintenance Pathway –

Aircraft Electronics Technician – Students in this major will learn how to Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, and navigation systems in aircraft. They will learn the correct terminology, circuit theory, inductor theory, frequency sensitive filters, digital numbering systems, and how to interpret electronics technical publications. They will also learn how to calculate and measure DC and AC using a variety of tools, how to identify faulty resistors, transformers, capacitors, and corrosion. In addition, the use of analogy circuits, switches, and other devices will also be covered along with safety and the basic theory of flight. Students will need to obtain the NCATT Certified Aircraft Electronics Technician certification.

Aerospace Technician – Students in this major will learn to inspect and perform maintenance, preventive maintenance, and how to alter an aircraft and aircraft systems. This major prepares the student with the knowledge and skill required to pass both the Airframe Mechanic and the Power Plant Mechanic exams administered by the FAA to gain entry level employment in aviation and other maintenance fields throughout the world. The Aviation Maintenance Technician major is certified under Part 147 of the Federal Aviation Regulations with an FAA-approved and supervised curriculum.

General Aviation – Students in this major will learn the fundamentals of the aviation maintenance profession. They will learn about the fundamentals of aircraft electricity, batteries and charging systems, how to interpret aircraft blueprints, how to identify forms of corrosion and how to treat or remove the corrosion and how to fabricate and install aircraft fluid lines and fittings. Students will also learn some basic physics, aviation math, aviation definitions and abbreviations, how to interpret aircraft maintenance publications, and how to do forms and reports of maintenance work done. In addition, students will also learn how to prepare an aircraft for weighting, perform calculations of aircraft weight, determine center of gravity and record weight and balance data. The Aviation Maintenance Technician major is certified under Part 147 of the Federal Aviation Regulations with an FAA-approved and supervised curriculum.

Airframe Mechanic – Students in this major will learn to inspect and perform or supervise maintenance, preventive maintenance, and alteration of aircraft and aircraft systems. This major is designed for the person who desires to work with airframes and other similar structures performing assembly, repair, rigging and inspections on a variety of control systems. It prepares you for entry employment in aviation maintenance or in a variety of service technician positions throughout the world. The Airframe Mechanic major is certified under Part 147 of the Federal Aviation Regulations with an FAA-approved and supervised curriculum.

Power Plant Mechanic – Students in this major will learn to inspect and perform maintenance, preventive maintenance, and alteration of aircraft systems. This major is designed for the person who desires to work on engines, turbines or other power generating devices and prepares you for entry employment in aviation maintenance or in a variety of service technician positions throughout the world. The Power Plant Mechanic major is certified under Part 147 of the Federal Aviation Regulations with an FAA-approved and supervised curriculum.

Aviation Sheet Metal Technician – Students in this major will learn how to work with sheet metal. They will learn how to drill and rivet airframe materials and how to fabricate, inspect and repair aircraft sheet metal structures. Students will also learn how to layout and bend sheet metal and how to use conventional and unconventional fasteners. They will learn how to identify and select aircraft hardware, determine proper torque limits and determine proper materials for aircraft and engine repairs. In addition, they will learn safety and fundamental math for aviation.

Aviation Composites Technician – Students in this major will learn how to work with composite materials in aircraft. They will learn how to read blueprints in order to fabricate components and how to use tools and equipment to prepare various layups and bonding techniques used to manufacture and repair composite materials. They will also learn how to analyze damaged composite components and how to repair the material. In addition, students will learn the fundamental properties and processes of structural materials and about composite materials and their manufacturing process. Safety and math formulas needed to perform the processes of layout, fabrication, and repair will also be covered.