

AVIATION (AVIATN)

Aviation (AVIATN) 101

Aviation General Sciences I-Math, Science and General Physics

This course introduces math and physics, basic aircraft types, nomenclature, and aerodynamics. Students learn algebraic operations, fractions, exponents, roots, and geometric analysis as applicable to aircraft design, powerplant operations, and aeronautical physics, as well as learning the physics behind simple machines, heat dynamics, fluid and gas laws, work and power, air pressure and the principles of weight and balance on an aircraft. The student will leave the course understanding basic principles of mathematics and physics and be able to apply that knowledge to safely weighing aircraft, computing the center of gravity, and applying an array of math and physics functions. Writing assignments, as appropriate to the discipline, are part of the course.

5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.

Offered At: OH

Aviation (AVIATN) 102

Aviation General Sciences II - Tools, Surfaces, and Corrosion Control

This course provides a study into the charts, diagrams, and text, which show the dimension's, stations, access doors, zoning and physical locations of the major structural components of an aircraft. Students will be introduced to the tools, hardware, materials, and processes used in aircraft maintenance and repair. At the end of this course, students will know the proper handling and inspection of aircraft and be able to recognize various types of corrosion causes and troubleshoot corrective measures to control corrosion of different types of metals used in aircraft construction. Writing assignments, as appropriate to the discipline, are part of the course.

5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.

Offered At: OH

Aviation (AVIATN) 103

Aviation General Sciences III - Maintenance Operations and Records

This course provides an introduction of maintenance publications and mechanic requirements for maintenance forms and records as well as an overview of flexible and rigid lines and fittings used to convey fluids in aircraft systems. Students learn aircraft services procedures; ground handling of aircraft and safety procedures and types of powerplants used in aircraft. By the end of this class, students will understand FAA regulations regarding maintenance personnel and know the limitations and requirements for inspection, maintenance records, and aviation mechanic privileges. Writing assignments, as appropriate to the discipline, are part of the course

5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.

Offered At: OH

Aviation (AVIATN) 104

Aviation General Sciences IV - Basic Electricity

: This course introduces electrical theory and operation. Students learn to calculate and measure voltage, current, resistance, how to build and analyze simple circuits and to use electrical schematics. At the end of this course, students will be able to discuss alternating current electricity and basic electronics theory and apply it to servicing and troubleshooting aircraft batteries and solid state devices.

5 Laboratory hours. 2.5 Lecture hours. 5 Credit Hours.

Offered At: OH