# AV 104 : INTRODUCTION TO AIRCRAFT SYSTEMS

## Transcript title
Intro to Aircraft Systems

## Credits
4

## Grading mode
Standard letter grades

## Total contact hours
40

## Lecture hours
40

## Course Description
Introduces the student to the training aircraft that are used in general aviation, and will look in detail at those aircraft used in this program. Aircraft in current use for training by industry will be studied and emphasis placed on basic aircraft systems operations, including emergencies. Applicable Federal Aviation Regulations, including the use of Minimum Equipment Lists, will be studied.

## Course learning outcomes
1. Explain the principles of operation and in-depth knowledge of the basic aircraft system.
2. Describe the principles of operation of a reciprocating engine and list the different types used in aviation.

## Content outline
- Physics
- Aircraft Engine Types and Construction
- Reciprocating Engine Theory of Operation
- Engine Lubrication and Cooling
- Propellers and Governors
- Fuels and Fueling Systems
- Power Management
- Supercharging and Turbo Charging
- Pressurization and High Altitude Operations
- Electrical Principles
- Electrical Components
- Aircraft Electrical Systems
- Hydraulic Systems and Landing Gear
- Pneumatic and Deicing Systems
- Aircraft Structures and Flight Controls
- Weight and Balance Inspections and Pilot Maintenance
- Aircraft Instrument Systems

## Required materials
Requires textbook and/or online learning materials.