



**THE OHIO STATE UNIVERSITY**  
COLLEGE OF ENGINEERING

# Aircraft Performance and Flight Test Engineering

## AEROENG 5612

**Credit Hours:**

3.00

---

**Course Levels:**

Undergraduate (1000-5000 level)

Graduate (5000-8000 level)

---

**Course Components:**

Lecture

---

**Course Description:**

Determination of the performance, stability, controllability, and handling qualities of general aviation aircraft through analysis and flight tests.

---

**Prerequisites and Co-requisites:**

Prereq: 3520 (520) and 3570 (530 and 570).

---

**Course Goals / Objectives:**

- Provide students with flight experience to accompany and enhance their understanding of the engineering aspects of aircraft performance, stability, and aerodynamics
-

**Course Topics:**

- Fundamentals
  - The Aircraft and Its Flight Environment
  - Uncertainty Analysis
  - Data Acquisition Techniques
  - Airspeed Calibration
  - Stall
  - Flight Envelopes
  - Engine Performance
  - Power Required and Drag
  - Climb and Glide
  - Static and Dynamic Longitudinal Stability
  - Takeoff and Landing
  - Maneuver
  - Noise Performance
  - Pre-Flight Presentations
  - Post-Flight Presentations
- 

**Designation:**

Elective