Aeronautical Engineering Minor

**Motivation:**
- Aircraft are increasingly important to Army
  - Largest operator of rotorcraft
  - Largest operator of UAS
- Consistently strong interest in Aeronautical courses
- Augment Mechanical Engineering courses with an Aeronautical minor on your transcript

**Structure:**
- **Required:**
  - ME387: Introduction to Applied Aerodynamics
  - ME481: Aircraft Performance and Stability
  - ME388: Helicopter Aeronautics
- **Select 2 of 7**
  - XE472: Dynamic Modeling and Control
  - ME389/489*: Advanced Studies in ME
  - EE489*: Individual Studies in EE
  - EE360: Digital Computer Logic
  - EE477: Communication Systems
  - MC312: Thermal-Fluid Systems I

* Required to have aeronautical focus
ME387: Introduction to Applied Aerodynamics

• Highlights:
  – Airplane aerodynamics
  – Airfoil design and testing in a wind tunnel
  – Cessna 182 Flight Lab

• Why take this?
  – Learn how/why objects fly…and more
  – Apply concepts from multiple courses
  – Combine theory, simulation, experimentation

• Admin:
  – Prerequisites: MC300 and MC311
  – Co-requisite: MC312
  – Offered: Every Spring semester
• Highlights:
  – Lakota Flight Lab
  – Trip to Sikorsky
• Why take this?
  – Learn more about helicopters
  – Apply concepts from many ME courses
• Admin:
  – Prerequisite: ME370 or equivalent
  – Offered every Spring semester
• **Highlights:**
  – Airplane performance
  – Two Cessna 182 Flight Lab
  – Trip to the USS Intrepid
  – Glider design and competition

• **Why take this?**
  – Learn about fixed wing aircraft performance
  – Discover static and dynamic stability of aircraft
  – Design, experiment, theorize, explore

• **Admin:**
  – *Prerequisites:* ME387
  – *Offered:* Every Fall semester