AE Specialty: Aeromechanics (Aerodynamics, Aeroelasticity, Structures)

The following courses are suggested for AE majors who want their degree to reflect their interest in the motion of the air and vehicle response, including aerodynamics, acoustics, aeroelasticity, handling qualities, and structural dynamics. Employment opportunities include all three vehicle types: fixed-wing, space vehicles, and rotorcraft.

AE Options:

- AE 4220 – Intro to Structural Dynamics and Aeroelasticity
- AE 4040 – Computational Fluid Dynamics
- **AE/ME 4791** – Mechanical Behavior of Composites
- AE/ME 4793 – Composite Materials and Processes
- AE 4132 – Finite Element Methods

Math:

- MATH 4581 – Math Methods in Engineering
- MATH 4305 – Linear Algebra

Free Electives:

- CS 2340/2345 – Programming Language (C++, Fortran or Python)

1st Year Graduate Electives:

- AE 6030 – Unsteady Aerodynamics

Note: computer skills recommended are Fortran (Aerodynamics), C++ (Structures), both (Aeroelasticity)

*Very strongly recommended based on employer feedback