

AE Specialty: Rotorcraft or Vertical Flight

The following courses are suggested for AE majors who want their degree to reflect their interest in vehicles capable of vertical take-off and landing, including both manned and unmanned (UAV, UAS) concepts. These course offerings are also pertinent to students exploring the wind and wave energy sectors. As GT-AE leads one of the three national Vertical Lift Research Centers of Excellence (VLRCOE), employers such as Bell, Boeing, Sikorsky, Airbus, Uber, etc. specifically seek out our graduates, with a strong employment record.

Choose: AE4343 for Design

Math:

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

AE Options:

- *AEXXXX - Rotorcraft Aeromechanics
- *AE 4351 – Rotorcraft Design II (Design Competition)
- AE4220 – Intro to Structural Dynamics and Aeroelasticity
- AE4040 – Computational Fluid Dynamics
- AEXXXX – Finite Element Methods
- AEXXXX – Robotics and Autonomy

Free Electives:

- AE 4370 – Life Cycle Cost Analysis

1st Year Graduate Electives:

- AE6030 – Unsteady Aerodynamics
- AE6070 – Helicopter Aerodynamics

*Very strongly recommended based on employer feedback