

AE 6333 Rotorcraft Design I

Catalog Data:

Stochastic approach to conceptual design of aerospace systems with emphasis on Rotorcraft . Comprehensive methodologies for aerospace vehicle synthesis and sizing. Integration of technologies.

Textbook: “Engineering Design Handbook, Helicopter Engineering - Part One: Preliminary Design” U.S. Army Material Command, Aug. 1974.

References: Course notes and handouts

Coordinator: Daniel Schrage, professor of A.E.

Goals: The course exposes students to different aircraft design techniques and allows them to apply these techniques to vehicle design while in a team-oriented environment. The objectives are:

- a) to familiarize the students with traditional design techniques and applications
- b) to teach students modern design theory and techniques
- c) to allow the student to apply the methods learned to the design of a vehicle, including sizing, synthesis, and analysis, as part of a team effort.

Prerequisites: AE 4400, 6370 or consent of school
Familiarity with the UNIX operating system environment
Familiarity with FORTRAN programming language