

AAE451 – Aircraft Design - DBF Version

Instructors:

Section 45100B - Thiago Guimaraes
Section 45100C - Bruce Alstrom

Lab. Engineer:

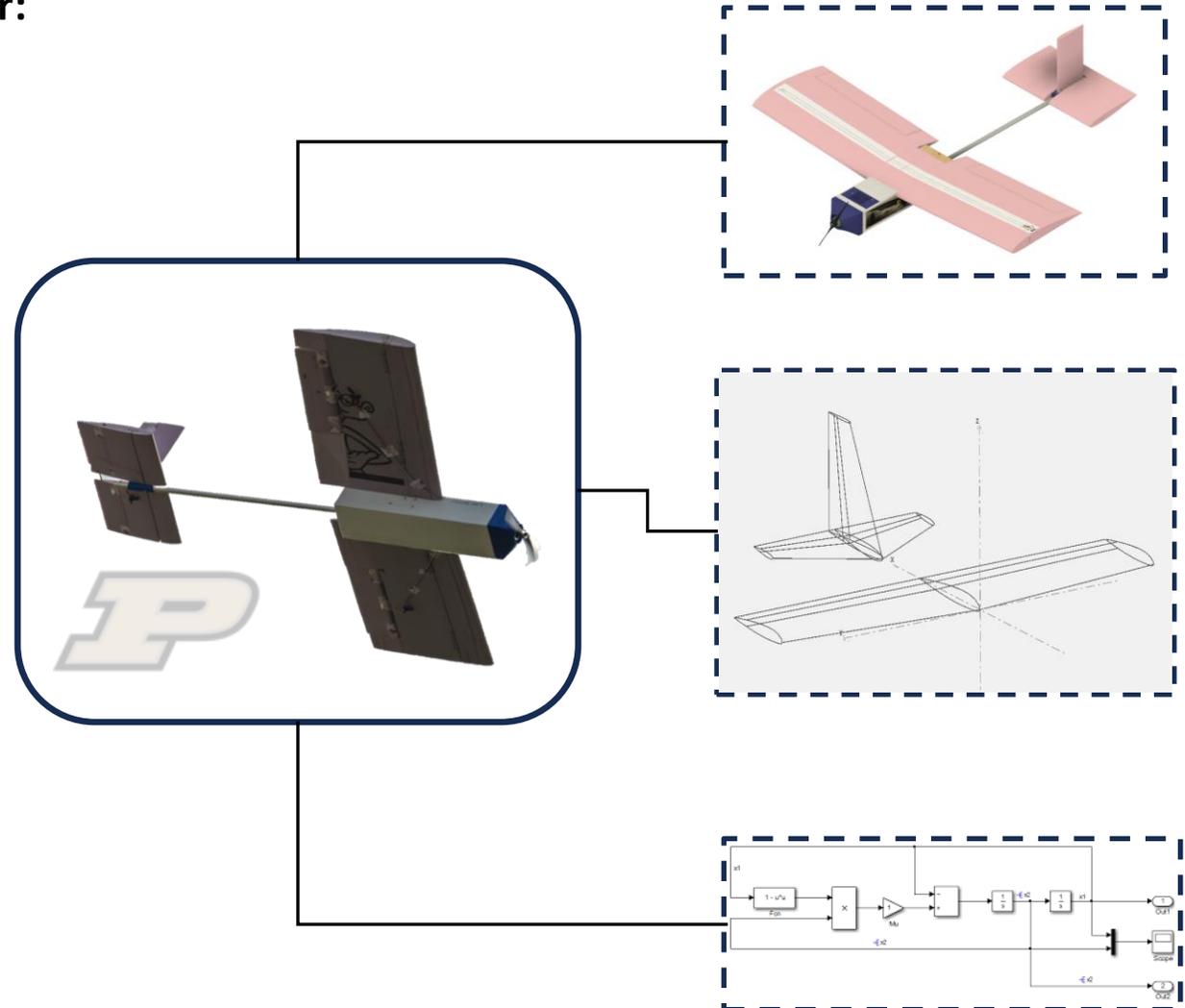
Tom Bietsch

Description:

The goal of this course is for students to learn about the “art and science” of aircraft design through **hands-on** experience with a semester-long aircraft design, build, and test project. Senior students work in a team **to design a small unmanned electric aircraft**, requiring the application of the knowledge and skills developed in the aerospace curriculum. The design process includes **performance** calculations, electric **powerplant** sizing, airfoil selection, wing sizing, **structural** analysis, **stability** and **control** analysis, and manufacturing planning. Students will **construct their aircraft** under guidance from the lab engineer and evaluate performance via **flight testing**. The teams will present and defend oral and written products about their designs.

Prerequisites:

Senior standing in AAE. Undergraduate level AAE 33400 Minimum Grade of D- and Undergraduate level AAE 34000 Minimum Grade of D- and Undergraduate level AAE 35200 Minimum Grade of D- and Undergraduate level AAE 36400 Minimum Grade of D- and Undergraduate level AAE 40000 Minimum Grade of D- [may be taken concurrently] and (Undergraduate level AAE 33900 Minimum Grade of D- or (Undergraduate level AAE 43800 Minimum Grade of D- [may be taken concurrently] and Undergraduate level AAE 43900 Minimum Grade of D- [may be taken concurrently]))



AAE490 – Aircraft Conceptual Design

Instructor:

Thiago Guimaraes

Description:

The goal

Prerequisites:

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