Fundamentals of Flight Vehicle Control

AEROENG 3521

Credit Hours (Minimum if “Range” selected):
3.00

Max Credit Hours:
3.00

Representative Textbooks and Other Course Materials:

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<th>Title</th>
<th>Author</th>
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<td>No Textbooks and Other Course Materials Entered.</td>
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Course Description:
Linear dynamic systems analysis using Transfer function (Laplace Transformation based) methods and State Space (matrix theory based) methods with emphasis on aircraft and spacecraft models.

Prerequisites and Co-requisites:
Prereq: 3520, and enrollment as AeroEng-BS student (No pre-majors can enroll in this class).

Designation:
Required

Course Goals / Objectives:
Understanding and appreciation of common features of linear time-invariant (LTI) systems encountered in various engineering disciplines
Obtain the responses of LTI systems and quantify their performances both within open-loop and closed-loop environments
Cast various mechanical, aerospace, electrical and electro-mechanical systems into forms amenable to the methods they learn in this course
Identification of characteristic parameters of LTI's from the studies of experimental/test responses