Instructor: Professor Long Lu
Email: Long.Lu@sjsu.edu

Office Hours: Friday 3 PM-5 PM (Online via Zoom)

Class Times and Location:

Upon successful completion of this course, students should be able to:

1. Understand the standard conventions and notation for rigid body aircraft dynamics and control
2. Understand the principles of aircraft static stability
3. Represent orientation using Euler angles
4. Derive rigid body equations of motion and develop a linearized form of these equations
5. Develop perturbation equations for six degree-of-freedom motion of an aerospace vehicle
6. Define stability and control dimensional derivatives and their physical meanings
7. Estimate lateral and longitudinal stability derivatives from aircraft geometry
8. Understand why deflecting ailerons produces a yawing moment
9. Derive expressions for aircraft control surface

Total ≥ 950 points: A+
Total ≥ 900 points: A
Total ≥ 850 points: A-
Total ≥ 800 points: B+
Total ≥ 750 points: B
Total ≥ 700 points: B-
Total ≥ 670 points: C+
Total ≥ 650 points: C
Total ≥ 630 points: C-
Total ≥ 600 points: D
Total < 600 points: F

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo>.
AE Department and SJSU policies are also posted at <http://www.sjsu.edu/ae/programs/policies>.

Week 1 F 08/19	Start of the Fall 2022 Semester
Week 2 T 08/23 & Th 08/25	Welcome to AE 168, Class Orientation, Syllabus Discussion Rigid Body Notation for Aircraft Dynamics and Control