Welcome to ASEN 3728 Aircraft Dynamics!



ASEN 3728 Aircraft Dynamics
UNIVERSITY OF COLORADO BOULDER



Outline

What is A/C Dynamics About?
Course Logistics
Nomenclature
My Background

Aircraft Dynamics and Controls

Aeronautical Engineering

- 1) Aerodynamics
- 2) Structures and Materials
- 3) Propulsion
- 4) Dynamics and Controls
- Keep the pointy end in front
- Get the aircraft to where we want to go

In this class, we will

- Develop a mathematical model of aircraft (A/C) behavior
- Learn how to create an aircraft computer simulation model
- Design control systems to effect desirable dynamics

Aircraft Dynamics

Newton's Laws

(ASEN 2703)

Inertial Reference Frame

+ Aerodynamics

(ASEN 2702, ASEN 3711)

Body Reference Frame

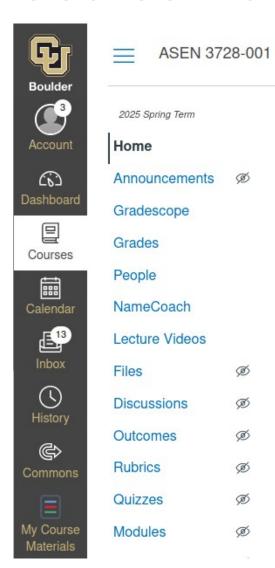
Aircraft Dynamics (ASEN 3728)



Nonlinear Equations of Motion



Course Hub: Canvas



Recent Announcements

ASEN 3728-001: Aircraft

Dynamics





Welcome to Aircraft
Dynamics! Links to all
course materials will be
added below:

Syllabus =>

Schedule ⇒

Materials

My Assumptions

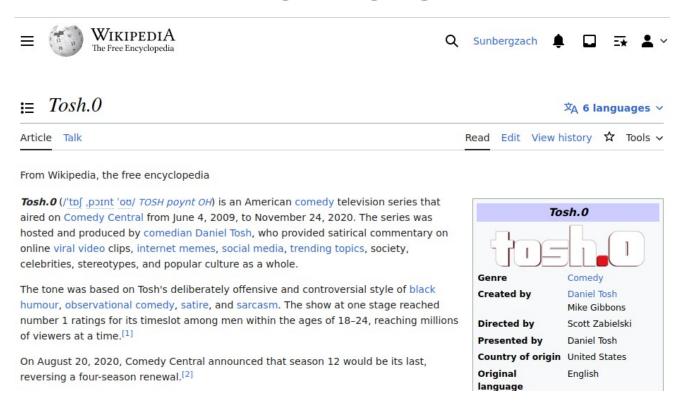
- The material is challenging, and can take multiple engagements to understand fully
- A student who comes to my office or asks a question wants to learn
- It may take multiple ways of explaining a concept before a student understands
- We must work together to help you find the way to understand
- Taking notes in class and doing the homework yourselves are critical steps to understanding
- I am trying to bring you to the point of understanding, not just give you the answer
- We will have fun this semester







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Once a week I will feature course-related memes and videos from the Internet.

Students should email me links to memes and videos on **topics related to the course content** (not about the course itself).



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Break

