AE 470 – Orbital Mechanics

Week 1 – Introduction
January 13, 2025

AE 470 – Orbital Mechanics

Jeffrey T. Walton, Ph.D.

- Currently Registrar and Director of Institutional Research at Paul Smith's College
- Education:
  - Ph.D. (Remote Sensing, Photogrammetry, and GPS Positioning – SUNY-ESF)
  - M.S. Remote Sensing, Texas A & M
  - M.S. Aerospace Engineering, University of Texas
  - B.S. Aeronautical Engineering, Embry-Riddle Aeronautical University
- Professional Experience:
  - Researcher with USDA Forest Service use satellite imagery to map urban tree cover
  - Ascent Flight Design Engineer, Rockwell Space Operations Co., Houston, Texas

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- Orbital Mechanics background
  - Fundamentals of Astrodynamics
  - Perturbation Methods
  - Computational Methods in Astrodynamics
  - Hamiltonian Mechanics
  - Attitude Dynamics and Control
  - Celestial Mechanics I
  - Celestial Mechanics II
  - Theory of Orbits I
  - Theory of Orbits II
  - Determination of Time
  - Satellite Geodesy
  - Statistical Estimation (Statistical Orbit Determination)
  - Dynamical Astronomy
  - Applied Orbital Mechanics

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Enough about me...

Introduce yourself:

- Name
- Program, Year
- What is your desired area of Aerospace Engineering?
- Why Orbital Mechanics?
- What other courses are you taking this semester?
- What is your plan after graduation?
- What is your computer programming experience?

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- Contact info:
  - Office: 364? CAMP
  - Office Hours: prior to class, after class
  - Email: jwalton@clarkson.edu
- Review Syllabus
  - https://github.com/jeffwalton/AE470_Sp25