

ASEN 5022: Spacecraft Attitude Dynamics and Control (Spring, 2005)

Instructor: K. C. Park (ECAE 185, 492-6330, E-Mail: kcpark@colorado.edu)

Texts: *Primary text:* **Space Vehicle Dynamics and Control** by Bong Wie, AIAA Text-book, 1998.

Prerequisites: ASEN3200, ASEN4010, ASEN4114 or ASEN4248 or equivalent

Time/Place: WF 3:30 – 4:45 / (ECCR 116)

Grading: Homework 25%. Three midterm quizzes 45%, @ 15% each. Final exam 30%.

Web Address: <http://caswww.colorado.edu/courses.d/ASEN5010.d/ASEN5010.schedule.html>

Course Outline

1. Review of Classical Mechanics and Linear Control Systems (4 weeks)
2. Orbital Dynamics and Orbital Maneuvers/Control (4 weeks)
3. Rotational Motions and Rigid-body Dynamics (4 weeks)
4. Rotational maneuvers and Attitude Control (3 weeks)