

ASEN 2004  
Introduction to Aerospace Vehicle Design and Performance  
Spring 20 20

Lecture: Aero 120            T/Th 8:30 am-9:45 am (Section 100)  
   T/Th 10:00 am -11:15 am (Section 200)

Lab: PILOT                      M/W 8:30-10:20 am (Section 301)  
   M/W 10:30-12:20 am (Section 302)  
   M/W 12:30-2:20 pm (Section 303)

Instructors	Prof. John Mah (aircraft lectures & labs) Office: Aero N207 Phone: 303-492-7651 Email: <a href="mailto:John.Mah@colorado.edu">John.Mah@colorado.edu</a> Office Hours: TBD	Prof. Torin Clark (spacecraft) Office: Phone: 303-915-2152 Email: <a href="mailto:torin.clark@colorado.edu">torin.clark@colorado.edu</a> Office Hours: TBD
-------------	---	--

Lab Instructor	Prof. Aaron Johnson (spacecraft labs) Office: Aero N209 Phone: 303-735-2986 Email:
----------------	---

Jordan Lerner  
Email: [jole9439@colorado.edu](mailto:jole9439@colorado.edu)

Fiona Mcgann  
Email: [Fiona.Mcgann@Colorado.EDU](mailto:Fiona.Mcgann@Colorado.EDU)

Course Objectives: To introduce the theory and methods for design and performance analysis of aircraft and spacecraft. Aircraft topics include wing design, propulsion, aircraft performance, and stability and control. Spacecraft topics include mission design, rocket performance, orbital mechanics and spacecraft subsystems. Emphasis is placed on introducing systems engineering aspects of design and analysis for aerospace vehicles.

#### Topical Outline

##### Aircraft

1.

Group	Homework*	10%
-------	-----------	-----

you are caught in any of these activities, you may receive a grade of "F" for the course and a report will be made to the Office of Student Conduct & Conflict Resolution.

7. All assignments will be submitted electronically (unless otherwise stated) via the Canvas course site. All homework must be handwritten and either scanned or utilize a digital writing software (OneNote, Apple Notes, etc). Work must be neat and readable with adequate spacing and margins. You are responsible for legibility - no reevaluation will be granted for illegible submissions. You are responsible for ensuring your digital upload contains all your work and properly uploads to the Canvas site. Always check your uploaded assignment turn-ins! Noncompliant or unacceptably illegible submittals will be returned ungraded with a score of zero.
8. Your name (last, first), assignment number, and due date should be visible in the upper portion of each page. Final answers must be indicated with an arrow or box, or underlined. Multiple answers (when only one is required) will be counted as incorrect.
9. Experimental lab reports should be completed using digital word processing program (Word, LaTeX, PDF, etc). All group member names with relevant assignment information must appear on the cover page. Bottom line - submit all work with a professional appearance. Neatness, clarity, and completeness really do count in the work world!
10. Detailed guidelines for laboratory reports and presentations will be distributed and reviewed separately. Labs are written up and presented in groups, and initially graded as a group effort. Final individual grades for each lab assignment, however, will reflect an anonymous peer evaluation of the group members and professor assessment. The peer assessment is a multiplying factor that can significantly alter your individual grade relative toari (iduasasIn



Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on classroom behavior and the Student Code of Conduct.

#### PREFERRED STUDENT NAMES AND PRONOUNS

CU Boulder recognizes that students' legal information doesn't always align with how they identify.

~~Subject to the University's policies on student conduct, CU Boulder will use the name and pronouns that a student provides in the student information system.~~