

Syllabus for ASEN 3300: Aerospace Electronics and Communications

Spring 2020 Morton & Rainville

Revised: 01/08/2020

Weekly schedule

Lecture: AERO 120, Monday and Wednesday 8:30 – 9:20am

Lab: AERO 141 Tuesday and Thursday, 8:30- 10:20 am OR 10:30 – 12:20 pm

Final: AERO 141, May 6th 7:30-10:00pm

Instructors

Prof. Jade Morton

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Teaching Assistants

TA: Colin Sullivan

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Lab Coordinator

Trudy Schwartz

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Class Web Portal

Canvas site at: canvas.colorado.edu

Required Texts and Equipment

x Laboratory Notebook (one per person, bound)

x Wolfson, *Essential University Physics, Volume 2*, 3rd edition; ISBN10: 0321976428

Course Overview

Modern aerospace vehicles rely on electronics, computers, and communications as essential system components. While these systems are most often designed by Electrical Engineers, to be effective as system designers, integrators, and analysts Aerospace Engineers must have a solid understanding of these critical subsystem areas. The aim of this course is to provide an overview of i) analog electronics, ii) digital electronics, and iii) communication system concepts as they are used in the aerospace industry. **The emphasis is on practical,**

to perform measurements.

Course Grade: 3.0 (A) Final grade: 4.8 (A) (4.9.3)-16 ()-1311 (.)4.8 (a c) (/) mllaon

and 100% for each student for their effort in the lab and compiling the reports. The group work (GW) grade then will be multiplied by the PEF score and added to the individual work (IW) score to calculate your final grade. The PEF score is thus a very significant part of your final grade and it is there to ensure that all students are contributing to the group work.

Cheating

Cheating will NOT be tolerated and the CU Honor Code will be upheld.

As group work is part of this class (lab experiments and report), it is useful to clarify what is considered cheating. You are expected to perform the lab assignments as a group, dividing the workload equally. Communication within the group is encouraged. It is OK to discuss the assignments and reports with fellow students in the class as long as this is done with the intention of learning, i.e. understanding the material. Sharing results, or data analysis is permitted only under specific circumstances, when there is now way for you to retake the data or redo the analysis. For example, if you realize after finishing your lab work that your data are erroneous, you may use and analyze the data from a diffe

- completing the lab in the allotted labtime. The completion of the lab assignments will be checked 8:30-8:40 am and 10:30 – 10:40 am on Tuesday. In case of absence, zero points will be given.
8. Lab exercises are conducted together with your team and a single lab report is submitted at the end of the week. Collaborations with other groups including shared diagrams or extensive discussion of results must be acknowledged at the end of your report. Copying text or answers from another group with or without their permission constitutes cheating and will result in a zero grade for the weekly lab module. A repeated instance of cheating will be reported to the student's permanent record and will result in an F for the course. Please see also Honor Code web pages <http://www.colorado.edu/academics/honorcode/>.
 9. Lab reports are due Monday by 12:00 noon. If late, the following deductions will be made:
 - a. 10% deduction for the group if turned in before 5 pm the same Monday
 - b. 50% deduction if turned in before 8 am the following Monday
 - c. No credit after 8 am the following Monday
 10. No make-up quizzes will be given or late labs accepted except under extenuating circumstances such as a school closure or sudden illness (with a note from a physician). Your lowest combined quiz/prelab score will be dropped as an attempt to allow for unforeseen incidents.
 11. University closure: If an assignment is due and the University is closed due to weather or other circumstance, then the assignment will be due on the next day that the University is open. In the event that a lab or lecture is cancelled due to University closure, please check the web site and email for updated information. C205 .8 (y)(e) (.)-8.75 0 Td.7 tan(.)-8.(u)1.90.5 (o)5i(n)2.8 (o)5 (u)1.8 (n)2.7 (c)331 (z)6.2 (/p)7

