

ASEN 2012 – Spring 2023

Experimental and Computational Methods in Aerospace Engineering Sciences  
Section 001: Monday/Wednesday 11:45-12:35, Aero 114

Office Hours:

Instructor: Wednesdays at 4pm,  
Hybrid format. AERO 232 and

TF support: Tuesdays and Thursdays at 5:30pm  
Aerospace Study Hall (Room

Grading Guidelines :

|                       |     |
|-----------------------|-----|
| Projects (2 projects) | 40% |
| Coding Challenges     | 30% |
| Quizzes (3 quizzes)   | 30% |

Your letter grades will be assigned based on expectations of performance. A letter grade of 'A' represents superior/excellent performance, a grade of 'B' represents good/better than average performance, while a grade of 'C' represents competent/average performance (which is in accordance with CU grading policy). Typically, a performance of 70% would earn you a grade of 'C', however, we reserve the right to normalize the class grades based on the expected minimum level of competency.

Important Notes

1. Course Schedule : We reserve the right to make changes to the weekly course schedule based on occurring events that require different dispositions. We will give sufficient advance notice through announcements in class and posting on the website. Changes to this syllabus and schedule may be announced at any time during class periods. We will post the current syllabus and schedule on the course website.
2. Lecture preparation: Reading assignments and viewing the posted lectures are to be completed before the course period. Many of our lectures are flipped, so coming prepared to work on problems and to ask questions is critical. Your active participation is key to the success of the class, and thus will factor heavily into your overall course grade.
3. Communication channels: The primary means for general course communication will be via course-wide Canvas announcement. Please ensure you have enabled notifications. Informal questions and discussions will be handled via the Canvas discussion boards. Questions regarding quizzes, course policies, coding challenges, or lecture materials can be asked during the 2 Tc 0.12(5 (C)2.6 (anv)-2 (as)-2 (1

6. **Programming Language:** In this class, we will exclusively use the programming language MATLAB because it is extensively used in the aerospace industry. Students who do not have a background in MATLAB are strongly encouraged to use the supplementary textbook and attend the TA's programming help sessions and office hours. MATLAB is available for a free download to your computer from the University. You also have access to the PILOT computer lab during periods for which no other class is using them.
7. **Assignment and Exam Regrade Policy** : If you would like to submit a regrade request for any assignments or exams you must submit a regrade request via email to the instructor within 2 weeks of the graded assignment return date. All regrade requests will be reviewed and approved by a course instructor and not teaching assistants, teaching fellows, or lab assistants.
  - a. The regrade request must clearly state the reason you are requesting the regrade, and what you believe the correct grade to be. Note that disagreement on the established rubric allocation of points is not a valid reason for regrade and will not be considered.
  - b. Points can be added OR removed based on correctness. Therefore, if a mistake was made in grading and too few points were awarded, the regrade request may increase the final score, however if the professor finds a mistake was made in grading and too many points were awarded, then the regrade request may lower the final score.
  - c. Regrades made in the final month of the course will only be entertained if the regrade alters the final letter grade.

#### Evaluated Outcomes

This is one of the first courses in the ASEN curriculum where you will begin to acquire the following skills and abilities, which are the expected outcomes from our program at graduation:

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|-----|---|
| O1  | Professional context and expectations (ethics, economics, etc.) |
| O4  | Written, oral, graphical communication ability                  |
| O5  | Knowledge of key scientific/engineering concepts                |
| O6  | Ability to define and conduct experiments, use instrumentation  |
| O7  | Ability to learn independently, find information                |
| O9  | Ability to design systems                                       |
| O10 | Ability to formulate and solve problems                         |
| O11 | Ability to use and program computers                            |

Evaluation of these outcomes allows an assessment of your performance and provides a major portion of the process we (i.e., the Faculty) use for continuous assessment and improvement of the entire AES undergraduate curriculum. The model for these outcomes derives from several sources including the "Desired Attributes of an Engineer" as defined by The Boeing Company, and "curriculum reviews" from



