

# **ASEN 5212- Composite Structures and Materials Spring 2023**

**The goal of the class is to introduce students to the concepts and tools necessary to analyze and design composite structures, with an emphasis on fiber reinforced composites. At the end of the class, the students will be able to**

**Describe different types of composite architectures and constituents**

**Select the correct combination of matrix and fibers for a given application**

**Perform basic homogenization and**

**Students will also be able to use email to communicate with the instructor. Please, start the subject of each email with "ASEN 5212". This will make sure that emails can be identified at the end of the course**

**No textbook is required. Material for the class will be posted in Canvas. Suggested reading includes**

**University Press**  
**, Ever J Bahar, CRC Press**  
**, Isaac M Daniel and Ori Ishai, Oxford**  
**University Press**  
**, Robert M Jones, Taylor & Francis**  
**, Richard M Christensen, Dover**

**The final grade will be evaluated based on homework assignments (30%), two midterms (20% each) and a final project (30%). All must be written in Word/Latex, or by hand and then scanned, and then submitted to Gradescope**

**Plagiarism in any other form of cheating in any of the assignments, exams, or the final project will result in failing the course. As a reminder: using someone else's code, or not referencing the source of figures (images, formulas, etc.) used in homework or project reports, are also forms of plagiarism**

**Requests to regrade any item need to be submitted within . Regrade requests will be submitted through Gradescope. Note: this procedure can only be used in the case of mistakes during grading, not to argue about the rubric**

**Homework assignments must be turned in before the due time, which will be specified in each homework set. No late assignments will be accepted for credit. Six or seven homework assignments are expected through the semester, with due dates approximately every other week**

**The assignment with lowest grade will be dropped when evaluating the final grade. In addition, the assignment with the second lowest grade will be substituted by the average of that assignment;**

95, 65, 85, then the score of 60 will be dropped, and the score of 65 will instead be substituted by  $(65 + (80 + 90 + 95 + 85)/4) / 2$ .

This will be the opportunity to submit a correction for your assignment for a small bonus. If you submit a correction with self-grading based on the provided solution and rubric, you will receive a 5% bonus. If you submit a correction (i.e., explaining what you did wrong, why, and what you should have done), you will recover 20% of the grade you lost. This will be specific to the assignment.

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in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8571 or [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include, but are not limited to, plagiarism, cheating, fabrication, lying, bribery, theft, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution ([honor@colorado.edu](mailto:honor@colorado.edu)); 303-492-5550. Students found responsible for Honor Code violations will receive a grade of F in the course.

resolution options. To learn more about reporting and support options for a variety of concerns, visit [Do It Right!](#)