

# ASEN 3713 – Thermodynamics and Heat Transfer

## Course Syllabus, Spring 2024

---

### **LECTURE INSTRUCTOR**

Dr. Hisham K. Ali  
Assistant Professor  
Email: [hisham.ali@colorado.edu](mailto:hisham.ali@colorado.edu)

Ann and H.J. Smead Department of Aerospace  
Engineering Sciences, University of Colorado Boulder  
3775 Discovery Drive, Boulder, CO 80303

### **TEACHING ASSISTANTS**

Steven Latimer  
Graduate Teaching Assistant  
Email: [steven.latimer@colorado.edu](mailto:steven.latimer@colorado.edu)

Sarah Hastings  
Graduate Teaching Facilitator  
Email: [sarah.hastings-1@colorado.edu](mailto:sarah.hastings-1@colorado.edu)

Prajit Rawte  
Graduate Teaching Assistant  
Email: [prajit.rawte@colorado.edu](mailto:prajit.rawte@colorado.edu)

# ASEN 3713 Thermodynamics and Heat Transfer

## Course Syllabus, Spring 2024

---

**Course Reading and Assignments:** The textbook will be followed closely but some additional material may be introduced to broaden a particular subject. This material will be distributed to the class. Students are expected to read the assigned textbook section in time to prepare for both in class discussion and for quizzes given approximately every week. Homework assignments will be weekly or bi-weekly.

**Course Quizzes:** Quizzes will be conducted on Canvas regardless remote or in-person teaching mode. Students will take quizzes on their own time after lecture X but before lecture X+1. Once a quiz is started, students have the specified time (between 10 and 20 minutes) to finish it. Quizzes cover previous lectures and reading assignments.

**Course Exams:** There will be three mid-term exams and a final exam. All mid-term exams will be in-class and cover the materials between it and the previous exam. All exams are closed book. However, for mid-term exams 1, 2, 3 and the final exam you are allowed to have 1, 2, 3, and then 4 single-sided 8.5x11 pages of crib notes, respectively, meaning 1-page crib notes accumulatively for each exam, **labeled with your name**. Always bring a calculator. Thermodynamic Tables will be provided to you for the exams. There will be no make-up opportunity for quizzes since the lowest three will be dropped. Make ups for exams are extremely difficult to accommodate. There will be no unexcused exam makeups provided. If you miss an exam, the course instructor will evaluate each case on an individual basis based on the context and information available to decide if a makeup exam will be provided. Students are encouraged to provide as much documentation as possible to enable an informed decision. If necessary, the instructor may choose to use your existing grades to cover your missed grade(s).

**Course Schedule:** The specific weekly course schedule (lectures, exams, assignments) will be posted to Canvas.

### COURSE TEXTBOOK AND PREREQUISITES

**Course Textbook:** Cengel, Cimbala, and Turner, *Thermodynamics: An Engineering Approach*, McGraw-Hill Education.

**Course Pre-Requisites:** ASEN 2702 or equivalent

### COURSE GRADING AND POLICIES

Our grading scheme is designed to indicate your level of competency compared to the standards set by the AES faculty. Do you meet the minimum level of competency? Do you exceed the minimum? Are you below the minimum? This should be indicated by the final grade. We (the faculty) are professionals and it is our job to set and maintain standards. We are expected to use our education, experiences, and interactions with industry, government laboratories, others in academia, etc., to determine the contents of these standards. Because our

**ASEN 3713 Thermodynamics and Heat Transfer**  
**Course Syllabus, Spring 2024**

---

# ASEN 3713 Thermodynamics and Heat Transfer

## Course Syllabus, Spring 2024

---

### **CLASSROOM BEHAVIOR**

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure 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 [classroom behavior](#) policy, the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

### **REQUIREMENTS FOR INFECTIOUS DISEASES**

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all public health orders to reduce the risk of spreading infectious diseases. The CU Boulder campus is currently mask optional. However, if masks are again required in classrooms, students who fail to adhere to masking requirements will be asked to leave class. Students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct & Conflict Resolution. Students who require accommodation because a disability prevents them from fulfilling safety measures related to infectious disease will be asked to follow the steps in the “Accommodation for Disabilities” statement on this syllabus.

For those who feel ill and think you might have COVID-19 or if you have tested positive for COVID-19, please stay home and follow the [further guidance of the Public Health Office](#). For those who have been in close contact with someone who has COVID-19 but do not have any symptoms and have not tested positive for COVID-19, you do not need to stay home.

### **ACCOMMODATION FOR DISABILITIES, TEMPORARY MEDICAL CONDITIONS, AND MEDICAL ISOLATION**

[Disability Services](#) determines accommodations based on documented disabilities in the academic environment. If you qualify for accommodations because of a disability, submit your accommodation letter from Disability Services to your faculty member in a timely manner so your needs can be addressed. Contact Disability Services at 303-492-8671 or [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu) for further assistance.

If you have a temporary medical condition or required medical isolation for which you require accommodation,

r a

# ASEN 3713 – Thermodynamics and Heat Transfer

## Course Syllabus, Spring 2024

---

### HONOR CODE

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 (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, 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 violating the [Honor Code](#) will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

### SEXUAL MISCONDUCT, DISCRIMINATION, HARASSMENT, AND/OR RELATED RETALIATION

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits [protected-class](#) discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who believe they have been subjected to misconduct can contact OIEC at 303-492-2127 or email [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about university policies, [reporting options](#), and support resources can be found on the [OIEC website](#). Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive [support](#) from OIEC about their options for addressing a concern and the support resources available. To learn more about reporting and support resources for a variety of issues, visit [Don't Ignore It](#).

### RELIGIOUS HOLIDAYS

CU Boulder is committed to supporting religious observance and practices that faculty make every effort to deal with fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this case, please reach out to email the instructor directly if a conflict arises due to religious observance. See the [CU Boulder policy regarding religious observance](#) for full details.

### MENTAL HEALTH AND WELLNESS

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health, or substance use, please reach out to the [Center for Counseling and Psychiatric Services \(CAPS\)](#) located in CU Boulder or call (303) 492-2492, 24/7.

and unlimited telehealth is also available through [Academic Live Chat](#). The [Academic Live Chat](#) site also provides information about additional wellness services on campus that are available to students.