

ME 3345

Section B

Fall 2026

INSTRUCTOR INFORMATION

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Teaching Practicum contact information (to be added after final confirmation)

GENERAL INFORMATION

Catalog Description: Introduction to the study of heat transfer, transport coefficients, steady-state conduction, transient conduction, radiative heat transfer, and forced and natural convection.

Learning Outcomes: The learning outcomes are listed as follows:

- Demonstrate an understanding of the basic concepts of conduction, radiation, and convection heat transfer
- Demonstrate an understanding of the concept of conservation of energy and its application to problems involving conduction, radiation, and/or convection heat transfer. This principle will be used to formulate appropriate mathematical models and associated thermal boundary conditions.
- Demonstrate the ability to formulate practical conduction heat transfer problems by transforming the physical system into a mathematical model, selecting an appropriate solution technique, and evaluating the significance of results,
- Demonstrate the ability to formulate practical radiation heat transfer problems by transforming the physical system into a mathematical model, selecting an appropriate solution technique, and evaluating the significance of results.
- Demonstrate the ability to formulate practical forced and natural convection heat transfer problems by transforming the physical system into a mathematical model, selecting an appropriate solution technique, and evaluating the significance of results.

Prerequisites: MATH 2403 (C or better) **or** MATH 2413 (C or better) or MATH 24X3 (T grade) **or** MATH 2552 (C or better) **or** MATH 2X52 (T grade) **or** MATH 2562 (C or better)
and
ME 3340 (D or better) **or** CEE 3040 (D or better)
and
ME 3322 (D or better)

Required Textbook: Bergman TL, Lavine AS, Incropera FP, DeWitt DP, *Fundamentals of Heat and Mass Transfer 8th Edition*, John Wiley, 2019.

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ASSIGNMENT AND GRADING POLICY

Grading:	two semester exams (100 each)	200
	group project	50
	final exam	200
	Total	450

Letter grades will be assigned to each exam, and the project which will provide an objective standard of class standing. The +/- system will be employed to better granularize the scores, given as follows:

Grade	Numerical value	Grade	Numerical Value
A+	4.33	C	2.0
A	4.0	C-	1.67
A-	3.67	D+	1.33
B+	3.33	D	1.0
B	3.0	D-	0.67
B-	2.67	F+	0.33
C+	2.33	F	0.0

The final grades will be the weighted average of the individual numerical grades, with the guarantee of final grades based on the following scale with downward adjustments possible for borderline students:

$$\begin{aligned}A &\geq 3.5 \\3.5 > B &\geq 2.5 \\2.5 > C &\geq 1.5 \\1.5 > D &\geq 0.5 \\F &< 0.5\end{aligned}$$

A guaranteed grading scale for each grading outcome will be used, given as: A- \geq 90%, B- \geq 80%, C- \geq 70%, and D- \geq 60%. The scale may be adjusted downward to account for a higher degree of difficulty.

Examinations: Examinations will be closed notes unless otherwise specified. You may use your book during the exam for equations and properties along with a calculator. Make-up examinations will only be given extreme circumstances and require interactions with the [Dean of Students](#).

Group Project: A group project will be assigned in the middle of the semester, which will require much more effort than homework problems. You will be assigned to a group of between 3-4 people. The use of AI to complete any portion of the project is not allowed. Late submissions will be not be accepted without prior approval.

Homework: Suggested homework problems will be provided through canvas. The answers will be posted on canvas to support the learning process.

Regrading Policy: Regrading of an examination will only be considered if the examination is accompanied by a typed letter of explanation documenting the perceived discrepancy(ies). If a regrade is requested, the entire examination will be graded, not only the portion under question.

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COURSE POLICY

Academic Integrity: Compliance with the Georgia Tech honor code and code of conduct is mandatory. Please carefully read the [Honor Code](#) and [Code of Conduct](#).

Accommodations for Students with Disabilities: If you are a student with learning needs that require special accommodation, contact the [Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Attendance: Class attendance is not mandatory, but it is highly recommended.

Course Information and Grades: Course information and grades will be available on canvas.

Student-Faculty Expectations Agreement: It is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. The [Student-Faculty Expectations](#) articulate some basic expectations. Simple respect for knowledge, hard work, and cordial interactions will help build the expected environment .