Fall 2023

ME 407-103: Heat Transfer

Narasinha Parasnis

Outline

ME 407-104 Heat Transfer

Office Hours: before or after the class, or meeting setup via email
Prof. Narasinha Parasnis, narasinha.c.parasnis@njit.edu
Converged Learning Course[1],
Wednesday 06:00 PM - 08:50 PM
Faculty Memorial Hall, 207

Office Hours: before or after the class, or an appointment, for meeting

Book	Fundamentals of Heat and Mass Transfer, 8th Edition Theodore L. Bergman, Adrienne S. Lavine, Frank P. Incropera, David P. DeWitt ISBN: 978-1-119-35388-1 Students are expected to access course materials, and homework through WileyPLUS subscription for this class. Access WileyPLUS through Canvas
WileyPLUS access	https://players.brightcove.net/4931690914001/default_default/index.html?videoId=6310647151112
Course Description	To understand the basic heat transfer modes of conduction, convection and radiation, and build up the ability apply the heat transfer relations for the analysis of heating, cooling or thermal systems through HWs, Exams and Project.
Prerequisite(s)	• Math 222 – Differential Equations (PDE) or equivalent, • ME 304 – Fluid Mechanics, • ME 311 – Thermodynamics I or equivalents
Best ways to contact with me	• Office hours, before or after the class, or an appointment, for meeting • Email: narasinha.c.parasnis@njit.edu • I am targeting to reply to each email within 48 hours

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Meeting Details (class and project meeting info, exam meetings will have their own separate meeting details, which will be shared prior to exams)

ME 407-103, Heat Transfer, Fall 2023

Hosted by Parasnis, Narasinha C

https://njit.webex.com/njit/j.php?MTID=mf119d4e263de15fcaaee8a6b825de71c

Wednesday, September 6, 2023 6:00 PM | 3 hours | (UTC-04:00) Eastern Time (US & Canada)

Occurs every Wednesday effective 9/6/2023 until 12/20/2023 from 6:00 PM to 9:00 PM, (UTC-04:00) Eastern Time (US & Canada)

Meeting number: 2620 647 9716

Password: HeatTransfer

Join by video system

Dial 26206479716@njit.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

Join by phone

1-650-479-3207 Call-in toll number (US/Canada)

Access code: 262 064 79716

[1] https://www5.njit.edu/registrar/sites/registrar/files/lcms/forms/Converged_Learning.pdf

Course Schedule (Note: this is just a planned schedule, depending on class progress, the class schedule can be changed on an as needed basis)

Week	Date	Topic	Due
1	6-Sep-23	"Heat transfer course introduction, syllabus, project guideline. Ch1: Introduction"	
2	13-Sep-23	Chapter 2: Introduction to Conduction	HW1
3	20-Sep-23	Chapter 3: One-Dimensional, Steady-State Conduction	HW2
4	27-Sep-23	Chapter 4: Two-Dimensional, Steady-State Conduction	HW3
5	4-Oct-23	Chapter 5: Transient Conduction	HW4
6	11-Oct-23	Exam 1 (Chapters 1 through 5)	HW5
7	18-Oct-23	Chapter 6 Introduction to Convection	
8	25-Oct-23	Chapter 7 External Flow	HW6
9	1-Nov-23	Chapter 8 Internal Flow	HW7
11	15-Nov-23	Exam 2 (Chapters 6 through 9)	HW9
12	22-Nov-23	Chapter 12 Radiation: Processes and Properties	
13	29-Nov-23	Chapter 13 Radiation Exchange Between Surfaces	HW10
14	6-Dec-23	Review	
15	13-Dec-23	Project presentation	HW11
16	20-Dec-23	Final Exam (Comprehensive)	

Item	% of total grade	Comments
Homeworks	20	• Top 8 HW grades will be used • Any homework that is submitted up to 7 days after due date will be graded for 90% of the total grade. • Any homework submitted after 7 days beyond due date will be graded for 60% of the total grade
Project	20	
Exam 1	15	
Exam 2	15	
Final Exam	30	

Final score	Letter grade
90 % and above	A
80% and above	B
70% and above	C
60 % and above	D
< 60%	F

Extra credit

Extra-credit (up to 5 points) will be available based on class attendance and participation. These Extra-Credits are added to the final Grade Points.

Unexcused absences

Any more than 1 unexcused absence will negatively affect your grade.

Correspondence

Please be clear, concise, and professional in your email correspondence.

Academic Integrity

"Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: http://www5.njit.edu/policies/sites/policies/files/academic-integrity-code.pdf.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. ***Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university.*** *If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu"*

Please note t0he “Best Practices” document developed and published on the Provost’s website (on the policies page) or directly at http://www5.njit.edu/provost/sites/provost/files/lcms/docs/Best_Practices_related_to_Academic_Integrity.pdf.