

# MIDDLE EAST TECHNICAL UNIVERSITY DEPARTMENT OF MECHANICAL ENGINEERING ME 311 HEAT TRANSFER – FALL 2017

Instructors

Group 1: Dr. Özgür Bayer, A-123, 210 2578, bayer@metu.edu.tr

Mondays 12:40-13:30 D-109, Wednesdays 10:40-12:30 B-101

Group 2: Dr. Zafer Dursunkaya, B-308, 210 5232, refaz@metu.edu.tr

Mondays 9:40-11:30 B-103, Wednesdays 12:40-13:30 B-103

Group 3: Dr. Tuba, A-143, 210 2575, okutucu@metu.edu.tr

Tuesdays 9:40-10:30 B-102, Thursdays 11:40-13:30 B-102

Group 4: Dr. İlker Tarı, E-206, 210 2551, itari@metu.edu.tr

Tuesdays 8:40-10:30 G-203, Thursdays 8:40-9:30 G-203

Group 5: Dr. Tuba, A-143, 210 2575, okutucu@metu.edu.tr

Tuesdays 10:40-12:30 B-102, Thursdays 9:40-10:30 B-102

Teaching Assistants

Burcu Karagöz, Serdar Hiçdurmaz, Kayacan Kestel

Textbook

Principles of Heat and Mass Transfer ( $7^{th}$  ed.), by Incropera, DeWitt, Bergman, and Lavine, WILEY.

There are other books in the library that you can use as reference, such as:

- 1. J.P. Holman, *Heat Transfer*, McGraw-Hill, 2010.
- 2. W.S. Janna, Engineering Heat Transfer, CRC Press, 2009.
- 3. M. Kaviany, *Principles of Heat Transfer*, Wiley, 2001.
- 4. F.Kreith and M.S.Bohn, *Principles of Heat Transfer*, 4<sup>th</sup> ed., Harper & Row Publishers, 1986.
- 5. V.S. Arpacı, A. Selamet, S.-H. Kao, *Introduction to Heat Transfer*, Prentice Hall, 2000.
- 6. J.H. Lienhard IV, J. H. Lienhard V, A Heat Transfer Textbook, Phlogiston Press 2003.
- 7. A.F. Mills, Basic Heat and Mass Transfer, 2<sup>nd</sup> ed., Prentice Hall, 1999.

Subject ( <u>tentative</u> lecture length)	Reading
Introduction to Heat Transfer (2 lecture hours)	Chapter 1
Introduction to Conduction (3)	Chapter 2
One-Dimensional, Steady-State Conduction (10)	Chapter 3
Two-Dimensional, Steady-State Conduction (6)	Chapter 4
Midterm 1 (tentative)	Chapters 1-4
Transient Conduction (9)	Chapter 5
Introduction to Convection (5)	Chapter 6
External Flow (7)	Chapter 7
Midterm 2 (tentative)	Chapters 5-7

<u>Communication</u> Communication will be through METU-Class (https://metuclass.metu.edu.tr).

Grading Policy 2 Midterm Exams : 50 %

#### Exams

There are two midterm examinations and one final examination. All examinations will be open textbook only. The dates will be announced by the department. You must bring your textbooks and a fully-charged calculator to all examinations. You may not use your cell phones under any circumstance during the class or examinations; they must be turned off. All examinations will reflect the material covered in class and in homework assignments.

### Make-up Policy

You must have an official excuse to take a make-up examination. The make-up examinations will be given to eligible students within two weeks after the missed exam. You must contact your instructor within one week after the missed examination.

#### Attendance

Attendance to all lectures will be recorded. Attendance is governed by the articles of Higher Education Law and the rules and regulations imposed by YÖK and METU.

#### Laboratories

There will be three lab sessions, about 20 minutes each. Lab hours and groups will be determined and announced later. You are expected to attend all laboratory sessions and submit written reports. You have to be on time to the labs; you will not be admitted if you are late and you will not be allowed to take a make-up. If you cannot attend an experiment due to an official excuse, talk to your assistant beforehand and ask for assignment to another group. No makeups will be given unless you have an official excuse.

## Homework

Homework will be assigned and collected, to be returned on time, with no exceptions. Homework problems will be designed to assist you in preparing for the exams and learn the subject matter. It is essential that you work on the problems on your own. Homework assignments must be turned in on clean, white, A-4 size paper, with multiple pages stapled together. Neatness will be graded. Please do not use a plastic protector sheet.

# Academic Honesty

- Incidents of acts of dishonesty (cheating, copying, deceiving) on examinations or homework will result in a zero grade for that examination or homework assignment.
- You may not write any solutions on your text book.
- You may not deceive the academic staff in attendance sheets by signing in place of other students.
- Repeated dishonesty will result in an "F" grade and will be reported to the Department's Chair. Students can reach the academic code of ethics from the link; http://www.me.metu.edu.tr/meweb/index.php?sec=people&page=code&lan=en