University of Massachusetts
Mechanical and Industrial Engineering 354
Spring 2011

Heat Transfer

Tuesday and Thursday 9:30-10:45AM in Goessmann Lab Room 20

This course is designed to be an introductory course to engineering heat transfer. Concepts including control volume analysis, conservation laws of mass, momentum and energy, conduction, laminar and turbulent convection, phase change and radiation will be developed and applied. The problems and examples will include theory and applications drawn from a wide range of engineering design and manufacturing problems.

Instructor

Professor Jonathan P. Rothstein
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Office hours: Wednesday 2:30-4:30 PM
Friday 2:30-4:30 PM
Email or call for appointment outside of office hours.

Teaching Assistant TBD

Web Page http://www.ecs.umass.edu/mie/faculty/rothstein/mie354.htm

Course Text Incropera, F. P., and DeWitt, D. P., *Introduction to Heat Transfer*, 5th Edition, Wiley, New York, 2007.

Grading The course grade will be based on two midterm exams and a final exam with the following weight:

Homework	15%
Hour Exams (2)	50%
Final Exam	35%

Homework A set of homework problems will be assigned roughly once a week during lectures. You should work through these problems carefully as they are essential for your learning of the material. The problems will be typically collected and graded on Tuesdays. Over the course of the semester you will receive several computational heat transfer homework assignments which will require the use of a software package such as EES, Matlab, C++, visual basic or even Excel.