

University of Virginia, Department of Materials Science and Engineering
Fall 2010, Monday and Wednesday, 08:30 – 9:45 am, Olsson Hall 009
MSE 2090: Introduction to the Science and Engineering of Materials

Instructor: Leonid V. Zhigilei

Office: Wilsdorf Hall, Room 303D

Office Hours: 10:00 am to 12:00 pm Tuesday *& open*

Telephone: 243-3582, **E-mail:** lz2n@virginia.edu

Teaching Assistant: Priya Ghatwai

Office: Materials Science Building 109

Office hours: from 4 to 5 pm on Wednesdays
from 2 to 3 pm on Fridays
in Materials Science Building, Room 125A

You can also e-mail Ms. Ghatwai for additional appointments.

E-mail: pg9j@virginia.edu

Class web site: <http://people.virginia.edu/~lz2n/mse2090/>

Class e-mail list: 10f-mse-2090-1@collab.itc.virginia.edu

Course Objectives: To introduce the basic principles underlying the behavior of materials. This course provides the scientific foundation for understanding of the relations among material properties, microstructure, and behavior of metals, polymers, and ceramics. Students will develop a vocabulary for the description of the empirical facts and theoretical ideas about the various levels of structure, from atoms, through defects in crystals, to larger scale morphology of practical engineering materials.

Textbook: W. D. Callister, Jr. and D. G. Rethwisch, Materials Science and Engineering: An Introduction (John Wiley 2010, 8th Edition)

Grading: Homework 15%; two mid-term exams 40%; final exam 45%.

Homework: 11 problem sets will be assigned and will be due at the beginning of class one week after assignment. Late homework will be accepted after this time only with an approved excuse. Homework solutions should be neat and stapled. Homework does not require the pledge and reasonable cooperation among students is permitted, providing it aids in the learning process. Copying is not permitted.

Lecture notes: An additional source of course material will come from the lecture notes. The lecture notes will appear at the class web page as course progresses. You should print out the lecture notes before coming to class, or make your own notes and combine them with the printed lecture notes.