

**MSE 2001B: Principles and Applications of Engineering Materials**  
Spring, 2009  
MWF 10:05-10:55AM  
Room 185, Love Building

**Instructor:** Dr. Valeria Tohver Milam

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**OFFICE HOURS:** M & W 11:00AM-noon

**COURSE DESCRIPTION:** This course will address the fundamentals of structure-property-processing relationships in engineering materials and relate these fundamentals to the performance of the materials.

Prerequisites: CHEM 1310 or CHEM 1102 or CHEM 1112

**TEXTBOOK:** James P. Schaffer, Ashok Saxena, Stephen D. Antolovich, Thomas H. Sanders, Jr. and Steven B. Warner, *The Science and Design of Engineering Materials*, Second Edition, Irwin, Chicago, IL, 1999.

**LECTURES:** The lectures will follow the material presented in the text and will be supplemented with additional concepts, examples and demonstrations for clarification. Students are strongly encouraged to read textbook material prior to class. **Please turn off cell phones, pagers, etc. before entering the classroom.**

**HANDOUTS:** Handouts to supplement lecture notes will be posted on T-Square. An email notice will be given when handouts are posted for an upcoming lecture. It is the responsibility of the student to print out and bring handouts to lecture.

**POP-QUIZZES:** To encourage regular class attendance and review of lecture material, pop quizzes will be given during class. Quizzes will cover any lecture material presented since the previous quiz. Quizzes will not cover problem sets and will not require a calculator. At the end of the semester the lowest two quiz grades will be dropped. There will be NO makeup quizzes.

**SUGGESTED PROBLEM SETS:** Suggested problem sets from the textbook will be given at the beginning of each class. It is the responsibility of each student to keep up with all assignments, however, these problem sets will NOT be collected or graded. Select problems and examples will be covered in class. Examinations will be based on lecture material, the suggested problem sets, textbook reading assignments and example problems provided in the assigned chapters. In fairness to all students I will not answer ANY questions regarding material for an examination on the day of the exam.

**REVIEW SESSIONS:** If there is sufficient interest, an optional review session (Q&A) will be scheduled approximately one week prior each exam to answer questions regarding lecture material, textbook material, or assigned problems. A vote for suitable days and times will be taken in class on Monday, January 12<sup>th</sup>. The outcome of the vote will be posted on T-Square.

**EXAMINATIONS:** There will be four in-class, closed book and notes examinations during the semester and a comprehensive final exam. If a student has a legitimate conflict, a makeup exam must be rescheduled by that student at least one week prior to the examination day. Calculators will be provided by the instructor. Personal calculators cannot be used.

**SPRING 2009 EXAM SCHEDULE AND TENTATIVE CHAPTERS COVERED:**

Exam 1:	Wed, January 28	Chpts 1-2, 3.1-3.4
Exam 2:	Wed, February 25	Chpt 3.5-3.11 & Chpt 4-5
Exam 3:	Wed, March 25	Chpts 6 & 7
Exam 4:	Wed, April 15	Chpt 8-9

The final exam is scheduled for May 1<sup>st</sup> 2:50-5:40PM in Love 185.

**GRADE:** Your final grade will be computed based upon your performance and scaled according to the following scheme:

Quizzes – 10%

Average of Exams 1-4: 60%

Final Exam (Comprehensive) - 30%

The following is my “minimum grade” guarantee for the course:

90-100% No less than an “A”

80-89% No less than a “B”

70-79% No less than a “C”

60-69% No less than a “D”

Less than 60% No less than a “F”

For example, if your course average is 89%, then your course grade will not be less than a “B”. A class curve is NOT guaranteed and can NOT be predicted.

Note: Students who are taking this course on a P/F (pass/fail) basis, a passing grade is C. If your average is below C you will receive a F in the course.

**ACADEMIC INTEGRITY**

In this course students are encouraged to study together. This policy includes working together on the assigned problem sets.

Students are to neither receive nor provide help to others during exams.

The use of programmable calculators is not allowed during exams.

Any student suspected of academic misconduct will be referred to the Office of Student Integrity at the Georgia Institute of Technology.