Course Description:


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Grading:
20% Assignments
20% Midterm #1
20% Midterm #2
40% Final Exam

Material covered:
1. Introduction to Materials (Chapter 1)
2. Mechanical Properties (Chapter 6)
3. Electronic properties (Chapter 19 (sections 1 and 3)), also discussion of magnets, transformers, and capacitors
4. Electronic Structure (Chapter 2)
5. Atomic and Ionic Arrangements (Chapter 3)
6. Imperfections (Chapter 4)
7. Ionic motion, diffusion (Chapter 5)
8. Polymers (Chapter 16)
9. Ceramics (Chapter 15)
10 Misc materials topics (hardening, unusual or new materials, material applications (bio-materials, nano))