MSN 500: CONCEPTS IN MATERIALS SCIENCE

Instructor: Engin Durgun
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Office hours: On demand
Lectures: Monday: 9:00 – 10:20 and Wednesday: 13:30 - 15:20
Assistants: Fadel El Helweh and Tunç Bektaş

Grading

Midterm1 25%

Midterm 2 25%

Final 25%

Homework 16%

Project 5%

Attendance 4% (if over 75 %)

Textbooks:
William D. Callister, Materials Science and Engineering

Reference books:
Charles Kittel, Introduction to Solid State Physics

Weekly calendar (Tentative)

Week	Subject
#1	Introduction and Fundamental Concepts
#2	Atomic Structure, Interatomic Bonding, QM concepts
#3	The Structure of Crystalline Solids
#4	Imperfections in Solids
#5	Mechanical Properties of Solids
#6	Mechanical Properties cont'd (midterm1)
#7	Thermal Properties of Solids
#8	Thermal Properties cont'd
#9	Electrical Properties
#10	Electronic Structure models and Semiconductors
#11	Magnetic Properties
#12	Magnetic Properties cont'd (midterm2)
#13	Optical Properties
#14	Optical Properties cont'd