Course Information

Instructor: W.D. Nix, Professor, Peterson Bldg. 550H
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Office Hours: Tu, Th 9-10 AM, (or by arrangement)

Teaching Assistant: Guleid Hussen
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Office Hours: Room 554H, T, Th 1:30-2:30 PM, (or by arrangement)

Web Site: http://www.stanford.edu/class/mse206/

References: 206 Class Notes (mostly hand written)
Required available in the bookstore

References: A. Kelly and G.W. Groves
Recommended Crystallography and Crystal Defects
Longman Group, Ltd. (1970)

D. Hull and D.J. Bacon
Introductions to Dislocations (Third Edition)

J. Weertman and J.R. Weertman
Elementary Dislocations Theory
Oxford University Press (1992)

Grading Basis: Homework (weekly) 20%
Mid-Term Examination 40%
Final Examination 40%
Undergraduate Required
Session: Peterson Laboratory
Room: 550C
2:10-3:00 PM, Wednesdays

Graduate: Optional
Session Peterson Laboratory
Room 556C
4:30-5:45 PM, Thursdays

Prerequisites: Engr. 50 (or other introduction to Materials Science)
MSE 202 (or other introduction to thermodynamics)
MSE 203 (or other introduction to crystallography)
Elementary Mechanics of Materials

Course Objective: To develop a quantitative understanding of the behavior of point, line and surface defects in crystalline solids. Particular attention is focussed on those defects that control the thermodynamic, structural and mechanical properties of crystalline materials.