3.40J/22.7J Modern Physical Metallurgy

Midterm Review

In-class Midterm Exam:
Tuesday, 04.06.04, 1 – 2pm

Coverage:
Core topics covered in lecture, readings and problem sets. These are points you should know well, such as:

- Crystal structure
- Miller indices
- Slip systems
- Defect notation, concentration and motion
- General forms of dislocation self-stress (ie, not the full stress matrix, but how self-stress scales with properties of the metal and of defect structure)
- Effects of defects on behavior of metals
- Defect configurations of low energy, and their impact on behavior of metals

Preparation:
Bring a pen, a calculator and a straight edge/ruler. Please do not use a pencil to complete this exam.

Take-home Midterm Exam:
Distributed Tuesday, 04.06.04, 2pm
Due Friday, 04.09.04, 11:59pm

Coverage:
Topics discussed in lecture, readings and problem sets.

Includes both qualitative descriptions of behavior and quantitative evaluations of structure, defects and behavior of metals.

Will integrate topics covered over course of semester, including application of these topics to literature data.