

Week 2	Point defects, Kroger-Vink notation Dislocations, Grain Boundaries
Week 3	Surfaces (Definition 4.5) Capillarity and Contact Angles
Week 4	Diffusion (Chapter 7) Quiz 1 on <u>Chapters 2-6</u>
Week 5	Non-Steady State Diffusion Diffusion in ionic solids
Week 6	Diffusion in solids Ionic conductivity
Week 7	Oxidation and parabolic rate laws Phase Equilibria (Chapter 8) Solid Solutions
Week 8	Quiz 2 on <u>Chapter 7</u> Kinetics (Definition 5.8)
Week 9	Nucleation Crystal Growth
Week 10	Glass Formation (Chapter 9) Precipitation
Week 11	Phase Separation Spinodal Decomposition
Week 12	Sintering and Grain Growth (Chapter 10) Initial Stage Sintering
Week 13	Intermediate Stage Sintering Quiz 3 on <u>Chapters 8 and 9</u>
Week 14	Final Stage Sintering Liquid Phase Sintering, Pressure Assisted Sintering
Finals Week	FINAL EXAM (3 hours)

GRADING CRITERIA:

The grade in this course is made up of 8 problem sets (30%), 3 quizzes (45%) and a final exam (25%). Without prior approval, late homework will not be accepted after the end of class. Problem sets can be solved as a group, but quizzes and the exam must be individual efforts. Regular attendance is expected. Class participation is encouraged.