

MASC 503
Fall 2017

THERMODYNAMICS OF MATERIALS

Lectures: M. E. Kassner RTH 502, Kassner@usc.edu
Office Hours: TTh 1-2 PM (Appt. Pref.)

TA Roya Ermagan: ermagan@usc.edu

Schedule: TTh 12:30-1:50PM
OHE 100D

Grading:
3 Midterms 60%
Final Examination 40%

Textbooks: Richard Dickerson, Molecular Thermodynamics,
Benjamin, Menlo Park, 1969.

Paul Gordon, Principles of Phase Diagrams in Materials
Science, McGraw Hill, New York, 1968

(These are out of print and the instructor will ensure
copies are available)

SCHEDULE

8/22	Introduction	Dickerson
8/24	First Law	Chapter 3
8/29	First Law	Chapter 3
8/31	Second Law	Chapter 3
9/5	Second Law	Chapter 4
9/7	Second Law	Chapter 4
9/12	Second Law	
9/14	Third Law	Chapter 4
9/19	Thermodynamic Relations	Chapter 4
9/21	Quiz I	
9/26	Phase Equil. Single Component Systems	Chapter 5
9/28	Phase Equil. Single Component Systems	Chapter 5
10/3	Phase Equil. Single Component Systems	
10/5	Thermodynamics of Solutions	Chapter 5
10/10	Thermodynamics Reactions	Chapter 5
10/12	Thermodynamics Reactions	Chapter 5
10/17	Thermodynamics of Reactions	Chapter 5
10/19	Quiz II	
10/24	Binary Systems	Gordon Chapter 4
10/26	Binary Systems	Chapter 4
10/31	Binary Systems	
11/2	Binary Systems	Chapter 4
11/7	Binary Systems	Chapter 4
11/9	Binary Systems	Chapter 4

11/14	Binary Systems	Chapter 4
11/16	Quiz III	
11/21	Binary Systems	Chapter 4
11/23	HOLIDAY	
11/28	Ternary Systems	Notes
11/30	Ternary Systems	Notes
12/12	Final Exam	11:00-1:00