

Physical Chemistry 231 Fall 2006

Dr. Eric Borguet (252 Beury Hall, 204-9696, eborguet@temple.edu)

Lecture: Tuesday, Thursday 8:40 – 10:00 AM Beury Hall 162

Recitation: Tuesday 10:10-11:00 AM, Wednesday 10:40-11:30 AM, Thursday 2:40-3:30 PM (BE 413)

Office Hours: Monday 2-3 pm, Friday 2-3 pm and by appointment.

Text: Thermodynamics, Statistical Thermodynamics, and Kinetics by Thomas Engel and Philip Reid (Benjamin Cummings, 2006)

Week	Date	Topic	Reading
1	8/28, 31	Fundamental Concepts of Thermodynamics	Ch 1, Appendix B
2	9/5, 7	First Law of Thermodynamics (Heat, Work, Internal Energy, Enthalpy)	Ch 2
3	9/12, 14	State Functions: Energy and Enthalpy	Ch 3
4	9/19, 21	Thermochemistry	Ch 4
5	9/26, 28	Entropy and the Second and Third Laws of Thermodynamics Sept 28 Midterm Exam # 1 (75 minutes)	Ch 5
6	10/3, 5	Chemical Equilibrium	Ch 6
7	10/10, 12	Real and Ideal Gases	Ch 7
8	10/17, 19	Phase Diagrams	Ch 8
9	10/24, 26	Ideal and Real Solutions	Ch 9
10	10/31, 11/2	Ideal and Real Solutions Oct 31 Midterm Exam #2 (75 minutes)	Ch 9
11	11/7, 9	Electrolyte Solutions	Ch 10
12	11/14, 16	Kinetic Theory of Gases	Ch 16
13	11/21, 23	Elementary Chemical Kinetics Thanksgiving Break Nov 23-26	Ch 18
14	11/28, 30	Elementary Chemical Kinetics	Ch 18
15	12/5, 7	Complex Reaction Mechanisms and Review Dec 14, 8:30-10:30 am Final Exam (120 minutes)	Ch 19

Grading: Exam#1 (25%), Exam#2 (25%), Final Exam (30%) Problems/quizzes (20%)