Chem 3621, Physical Chemistry III, Spring 2003
Latest revision is 5/12/03

Class Times: TTh 9:00 – 10:50 am, Olin 103
Instructor: Sandra S. Eaton
Office: Seeley G. Mudd Rm. 178
Office Hours: T Th 8-9 am, 11-12 am, or by appointment
Text: *Physical Chemistry*, P. Atkins and J. de Paula, 7th ed., Freeman, 2002.

Course Outline

Date	Topic	Reading in Atkins and de Paula	Homework - E and P refer to Exercises and Problems from Atkins and de Paula
Mar. 27	Electronic Spectroscopy	538-549	
April 1	Lasers – Dr. Gilbert	553-568	
3	No class – reschedule as review at end of quarter		
8	Electronically Excited Molecules, Photoelectron Spectroscopy	550-553, 568-571	
10	Magnetic Resonance	579-598	E17.6b, E17.16b, P17.11, P17.14, P17.19
15	NMR	599-608	
17	Huckel Theory	429-438	E18.9b, E18.10b, E18.15b, E18.16b, P18.2
22	Electron Spin Resonance	615-622	
24	Exam 1		E14.15b, E14.16b (use SHMO on web), E18.22b, E18.24b, E18.25b, P18.8 (refer to table 18.2).
29	Statistical Thermodynamics	628-637	
May 1	Internal energy and entropy	638-646	
6	Motion in Gases	815-824	E19.6b, E19.8b, E19.10b, E19.15b, P19.6
8	Rates of Reactions	862-873	
13	Rate Laws, Temperature Dependence	873-881	E24.5b, E24.10b, E24.11b, E25.6b, E25.8b
15	Mechanisms and Rate Laws	882-887	
20	Mechanisms (cont.)	887-892	E25.14b, E25.15b, E25.16b, E25.18b, P25.7
22	Exam 2		
27	Complex Reactions	899-908	
29	Collision Theory	944-955	
June 3	Review/overview (time to be arranged)		
5	Final exam – cumulative 9-11 am		

Homework will be assigned weekly. The assignments will be added to the version of the course outline that is posted on Blackboard.

Grading: Class Participation - 10%, Homework - 15%, Exams - 25% each.