

CH 433 Physical Chemistry II

Fall Session 2008

Class Time: 10:15-11:30 Tu,Th, Dab 330

Problem Period: 401 F 11:20-12:10, 12:25-1:15 (Dab 330)

Instructor: Dr. Stefan Franzen, Partners III, Email: Stefan.Franzen@ncsu.edu

Phone: 515-8915

Office Hours: Th, 11:05, F, 2:30

Text: Physical Chemistry, Atkins and DePaula, 8th Edition, Oxford University Press

Date	Topic	Reading
1. Aug 21	Macroscopic vs. Microscopic	Chapter 1
2. Aug 26	Properties of Gases	
3. Aug 28	Real Gases/Corresponding States	
4. Sept 2	Partition Function	
5. Sept 4	The First Law	Chapter 2
6. Sept 9	Heat Capacity	
7. Sept 11	Heat, Work, and Energy	
8. Sept 16	Thermochemistry	
9. Sept 18	Entropy and the 2 nd Law	Chapter 3
10. Sept 23	Second Law Applications	
11. Sept 25	Entropy and the Third Law	Chapter 4
12. Sept 30	Gibbs Free Energy	
13. Oct 2	Review	
14. Oct 7	Mid-term I	
15. Oct 14	Second Law Applications	Chapter 5
16. Oct 16	Maxwell Relations	
17 Oct 21	Phase Equilibria	Chapter 6
18. Oct 23	The Clausius-Clapeyron Eqn.	
19. Oct 28	Solutions – Real and Ideal	

20. Oct 30	Gibbs-Duheim, Activity	Chapter 7
21. Nov 4	Colligative Properties	
22. Nov 6	Mid-term II	
23. Nov 11	Introduction to Kinetics	Chapter 21
24. Nov 13	Rate Laws	Chapter 22
25. Nov 18	Complex reactions	Chapter 23
26. Nov 20	Reaction dynamics	Chapter 24
27. Nov 25	Catalysts/Surfaces	Chapter 25
28. Dec 2	Applications	
29. Dec 4	Review	

Dec. 16 8:00 a.m. Final Exam

Grades will be based as follows:

Quizzes and Homework

Mid-Terms

Final Exam

Semester Total

There will be +/- grading.

300 pts

400 pts

300 pts

1000 pts

The Final Exam can substitute for one mid-term (i.e. 500 pts) in case of excused absence.