

Chem 440 syllabus
Physical Chemistry
Fall 2015

Instructor: Lee Sunderlin Office Hours: MWF 10-11 in FW/Lat 327 or 331
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Text: Physical Chemistry, 10th edition (Atkins)

Chem 440 and 441 cover physical chemistry: Chem 440 concentrates on thermodynamics and the first part of kinetics, while Chem 441 finishes kinetics and covers quantum mechanics. Chem 440 will cover Chapters 1-6, 19, and 20 (if possible).

There will be four tests, each covering roughly 2 chapters. The exact cutoff for the test material will be noted on Tuesday before each test.

Test 1	Sept 18	100 pts
Test 2	Oct 16	100 pts
Test 3	Nov 13	100 pts
Final	Dec 9 (Wed 10 AM)	100 pts plus 100 pts cumulative

In addition, there will be homework assignments for each chapter. The tests are worth 100 points (the final is counted as two 100 point tests). The HW is counted for 100 points, and the HW grade can be used to replace the lowest test score. This gives a class total of 500 points. Students may work together on homework, and a solutions manual is available. Students should use these resources as occasional rather than constant aids. *Diligence on the HW assignments is the key to success in this class.* Except in unusual circumstances, there will be no makeup exams. Grades will be assigned on a 93 = A, 90=A-, 87=B+, 83 = B, 80=B-, 77=C+, 70 = C, 60 = D basis.

This class meets MTThF 11:00 to 11:50. The MTTh meetings will be regular lectures. The Friday meetings will be either tests or HW recitations, or in some cases discussion of material from the associated lab class. September 7 and Nov 26-27 are holidays.

Physical chemistry textbooks vary substantially in style and students are encouraged to read other books if the text is not effective. The Levine, Laidler, Raff, and Reid texts and others will be on reserve in the library or available from the Professor for your use. You are also encouraged to stop by for office hours. If the scheduled office hours are not convenient, appointments at other times can be made.

Academic Integrity:

Good academic work must be based on honesty. The attempt of any student to present as his or her own work that which he or she has not produced is regarded by the faculty and administration as a serious offense. Students are considered to have cheated if they copy the work of another during an examination or turn in a paper or an assignment written, in whole or in part, by someone else. Students are responsible for plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students responsible for, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the university. (Note that working *together* on homework is not considered plagiarism in this class; *copying* another's homework is.)

Accommodations for Students with Disabilities:

A student who believes that reasonable accommodations with respect to course work or other academic requirements may be appropriate in consideration of a disability must (1) provide the required verification of the disability to the Disabilities Resource Center, (2) meet with the Disabilities Resource Center to determine appropriate accommodations, and (3) inform the faculty in charge of the academic activity of the need for accommodation. Students are encouraged to inform the faculty of their requests for accommodations as early as possible in the semester, but must make the requests in a timely enough manner for accommodations to be appropriately considered and reviewed by the university. If contacted by the faculty member, the staff of the Disabilities Resource Center will provide advice about accommodations that may be indicated in the particular case. Students who make requests for reasonable accommodations are expected to follow the policies and procedures of the Disabilities Resource Center in this process, including but not limited to the Student Handbook.

A wide range of services can be obtained by students with disabilities, including housing, transportation, adaptation of printed materials, and advocacy with faculty and staff. Students with disabilities who need such services or want more information should contact the Disabilities Resource Center at 815-753-1303.

Chapter 1 HW

Exercises 1A.1a, 3b

Problems 1A 6, 7, 8

Exercises 1B.1a, 4a

Problem 1B.2

Chapter 2 HW Exercises

2A.1a, 2a, 2b, 3a, 4a (i, ii, iii), 5a

2B.1a, 3a

2C.1a, 2b, 3a, 5a (first part), 8a

2E.2a

Chapter 3 HW

Exercises 3A.1b, 2a, 3a, 4a, 7a, 8a, 11b

Problems 3A.5, 10

Exercises 3B.1a, 2a

Problem 3B.3

Exercises 3C.1a, 2b

Exercises 3D.1a, 3a

Chapter 4 HW

Exercises 4A.1a, 3a

Exercises 4B.2a, 3a, 5a, 6a, 7a, 9a, 12a

Problem 4B.2

Chapter 5 HW

Exercises 5A.2a, 4a, 6b, 8a, 9a, 11a

Exercises 5B.2b, 3a, 4a, 6a, 9a

Exercises 5C.3a, 4a, 7a

Problem 5C.7bc

Exercise 5D.4b

Exercises 5F.1a, 3a

Chapter 6 Exercises

6A 1a, 3a, 5a, 6b, 10b

6B 4a, 4b

6C 1a

6D 1a

Chapter 19 Exercises

19A 1a, 2ai, 3a, 8b, 11b

19B 1a, 2a, 3a, 6b

19C 1a

Chapter 20 HW (note: some or all of this assignment may be moved to CHEM 441 depending on how fast the class goes through the material)

Exercises 20A.2a, 4a

Problems 20A.1, 2, 4

Exercises 20B.1a, 2a, 3b

Problems 20B.3, 9

Exercise 20C.1a

Exercises 20D.1a, 2a

Exercises 20E.1a, 1b

Exercise 20F.1a

Exercise 20G.1a

Exercise 20H.1a, 2a