

***Instructor***

Dr. Sharmistha Basu-Dutt

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Instructor Office hours:

M – R 9 am - noon

SI: Taylor Box

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SI Hours: Monday 10:30 – 11:30 am, Thursday 11 am - noon

SI Office Hours: Tuesday 11 am - noon

***Purpose***

This is the second course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. The course satisfies Core Requirement in Area D. The “**flipped**” **classroom** model will be used in lecture to promote active student learning as well as logical thinking and analytical reasoning in problem solving.

***Textbook and Calculator***

*Chemistry: Structure and Properties* by Nivaldo J. Tro, 2<sup>nd</sup> edition, Pearson is required. Students Solutions Manual accompanying textbook is optional.

A *graphing calculator* is required and must be brought to class every day.

***Learning Outcomes***

Students will:

- acquire a basic understanding of chemical bonding, equilibrium, kinetics, thermodynamics.
- apply scientific reasoning and methods of inquiry to explain natural phenomena.

***Course Policies and Guidelines***

- The class meets on Mondays and Wednesdays from 12:30 – 1:45 pm in TLC 2105.
- Behave **professionally** - your behavior/attitude impacts the classroom learning environment.
  - Come to class on time, and do not leave early.
  - Remember to fill your water bottle or use the restroom before class.
  - Bring your textbook, calculator, notebook, pencil/pen – we will use all of them in class regularly. You cannot share these.
  - Cell phones, laptops and other electronic devices are NOT allowed during class.

- Bags and purses must be placed on the floor.
- Course materials including the syllabus, class-notes, sample exams, and take-home quizzes (graded) are available through Course Den. A hard copy of the syllabus will be distributed on the first day of class. You will be responsible to print all other course materials.
- No make up exams will be given. In case of an illness or a dire emergency, the instructor must be contacted prior to the examination in-person, via phone or email. Accommodations for missed exams will be handled depending on the severity of the situation between the student and the instructor.
- Refer to the student handbook for information on academic support, honor code, email policy, credit hour policy and HB 280 campus carry policy [https://www.westga.edu/administration/vpaa/assets/docs/faculty-resources/common\\_language\\_for\\_course\\_syllabi\\_v2.pdf](https://www.westga.edu/administration/vpaa/assets/docs/faculty-resources/common_language_for_course_syllabi_v2.pdf)

### ***Examinations and Grades***

There are eight take-home quizzes worth 100 points. I will announce the schedule for quiz submission – typically multiple quizzes (covering content for an exam) will be due at the start of each exam. Collaborative work is allowed on the quizzes and you can check your answers with peers or me before submission. Remember to print a copy of the quiz and turn in a hard copy for a grade.

There will be four examinations and a comprehensive final examination during the semester. Each examination will be closed book and notes. You will need to bring a graphing calculator to the tests. If necessary, I will provide the scantron sheets, periodic charts and conversion tables. The standardized examination (multiple choice) from the American Chemical Society, covering content from 1211 and 1212, will serve as the final.

All exam and quiz grades will be based on your ability to DEMONSTRATE full understanding of the material. Full credit will only be given if you SHOW ALL YOUR WORK, not just for obtaining the correct answer. Your grade will be calculated based on the following components:

In-class exams (4 @ 100 points each)	400 points
Final (Comprehensive)	100 points
Take home quizzes	100 points
<b>TOTAL</b>	<b>600 points</b>

Grading scale: 90% : A; 80 – 89% : B; 70 – 79% : C; 60 – 69% : D; < 60% : F

*If your grades are borderline, your attitude and effort during class/SI sessions/office hours will be factored into the final grade.*

### *Tentative Schedule for the Course*

<b>WEEK</b>	<b><i>Monday</i></b>	<b><i>Wednesday</i></b>
1	January 7 – Chapter 11	January 9 – Chapter 11
2	January 14 – Chapter 11	January 16 – Chapter 13
3	<i>January 21 – No class</i>	January 23 – Chapter 13
4	January 28 – Chapter 13	<b>January 30 – EXAM 1</b>
5	February 4 – Chapter 14	February 6 – Chapter 14
6	February 11 – Chapter 14	February 13 – Chapter 15
7	February 18 – Chapter 15	February 20 – Chapter 15
8	<b>February 25 – EXAM 2</b>	February 27 – Chapter 16  (Last day to withdraw with a W)
9	March 4 – Chapter 16	March 6 – Chapter 16
10	March 11 – Chapter 17	March 13 – Chapter 17
	<i>March 18 – No class</i>	<i>March 20 – No class</i>
11	March 25 – Chapter 17	<b>March 27 – EXAM 3</b>
12	April 1 – Chapter 17	April 3 – Chapter 18
13	April 8 – Chapter 18	April 10 – Chapter 18
14	April 15 – Chapter 19	April 17 – Chapter 19
15	April 22 – Chapter 19	<b>April 24 – EXAM 4</b>
16	April 29 – Review	<b>May 1 – FINALS</b>  <b>11 am – 1 pm</b>

Homework is not graded but highly recommended for practice and mastery of content.

**Chapter 11:** 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 75

**Chapter 13:** 25, 27, 29, 31, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 59, 61, 63, 67, 69, 73, 77, 81, 83, 85, 91

**Chapter 14:** 27, 29, 37, 39, 41, 43, 45, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 77

**Chapter 15:** 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 53, 55, 57, 61, 71

**Chapter 16:** 33, 39, 41, 47, 49, 51, 55, 59, 61, 65, 69, 71, 73, 77, 85, 87, 93, 99, 103, 109

**Chapter 17:** 27, 29, 31, 35, 39, 41, 43, 45, 47, 49, 53, 59, 61, 67, 69, 71, 73, 79, 83, 87

**Chapter 18:** 27, 31, 35, 37, 41, 43, 45, 49, 51, 53, 55, 59, 61, 63, 65, 67, 69, 71, 75, 79

**Chapter 19:** 33, 35, 37, 39, 41, 43, 45, 47, 49, 53, 57, 59, 61, 63, 65, 67, 69, 73, 83, 85, 91