

CHEM 1211 Principles of Chemistry I Fall 2018

Instructor

Dr. Sharmistha Basu-Dutt

Office: TLC 2136

E-mail: sbdutt@westga.edu

Phone: (678) 839-6018

Instructor Office hours: M, W 9 – 11 am T, R 1 – 3 pm by appointment

Supplemental Instructor (SI): Taylor Box tbox1@my.westga.edu

SI Session: M 2 – 3 pm and W 9:30 – 10:30 am SI Office hours: Thursday 11 am - noon

Purpose

This is the first 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

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

Learning Outcomes

Students will:

- acquire a basic understanding of
 - the structure and properties of matter,
 - modern atomic structure and properties,
 - chemical bonding,
 - types of chemical reactions,
 - stoichiometry,
 - thermochemistry,
 - gas properties.

- 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

Examinations and Grades

There are eleven 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 calculator to the tests. If necessary, I will provide the scantron sheets, periodic charts and conversion tables. The final will be a standardized exam from the American Chemical Society.

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
TOTAL	600 points

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

WEEK	Monday	Wednesday
1		August 15 – Chapter E
2	August 20 – Chapter E, 1	August 22 – Chapter 1
3	August 27 – Chapter 2	August 29 – Chapter 2
4	<i>Sept 3 – No class</i>	Sept 5 – Chapter 2
5	Sept 10 – EXAM 1	September 12 – Chapter 3
6	September 17 – Chapter 3	September 19 – Chapter 4
7	September 24 – Chapter 4	September 26 – Chapter 5
8	October 1 – EXAM 2	October 3 – Chapter 5
9	October 8 – Chapter 6 <i>(Last day to withdraw)</i>	October 10 – Chapter 7
10	October 15 – Chapter 7	October 17 – Chapter 7
11	October 22 – Chapter 8	October 24 – Chapter 8
12	October 29– Chapter 8	October 31 – EXAM 3
13	November 5 – Chapter 10	November 7 – Chapter 10
14	November 12 – Chapter 10	November 14 – Chapter 9
15	<i>November 19 – No class</i>	<i>November 21 – No class</i>
16	November 26– Chapter 9	November 28 – Chapter 9
17	December 3 – EXAM 4	December 5 – Review
18	December 10 – ACS Final 11:00 am – 1:00 pm	

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

Chapter E – 21, 23, 29, 31, 33, 37, 41, 43, 45, 47, 49, 53, 57, 59, 65, 67, 71, 73, 75, 79

Chapter 1 – 35, 37, 39, 41, 45, 47, 49, 51, 53, 55, 67, 69, 71, 73, 77, 79, 81, 85, 91, 93

Chapter 2 – 35, 39, 41, 43, 45, 51, 55, 57, 59, 61, 63, 65, 67, 69, 71

Chapter 3 – 41, 43, 45, 47, 49, 51, 55, 57, 59, 61, 63, 67, 73, 75, 77, 79, 81, 83, 87, 89

Chapter 4 – 29, 31, 35, 39, 43, 45, 49, 55, 59, 65, 69, 77, 81, 85, 87, 89, 93, 95, 97, 101, 103, 105, 107, 109, 111

Chapter 5 – 23, 27, 29, 31, 35, 37, 41, 43, 45, 47, 49, 51, 57, 59, 61, 63, 67, 69, 71, 73

Chapter 6 – NO HOMEWORK

Chapter 7 – 15, 17, 19, 21, 23, 27, 29, 33, 35, 39, 41, 43, 47, 51, 55, 57, 59, 61, 65, 67

Chapter 8 – 21, 23, 25, 27, 29, 31, 33, 35, 37, 41, 45, 47, 49, 51, 53, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77

Chapter 9 – 35, 37, 41, 43, 45, 49, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 83, 87, 89, 91, 93

Chapter 10 – 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89