

Survey of Chemistry I

Chemistry 1212 K

Course Syllabus Spring 2014

Instructor: Dr. Jyotsna Thota.

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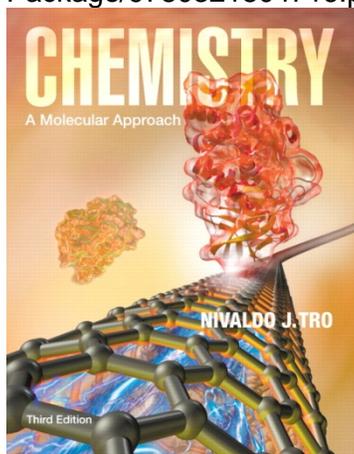
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Email is the best way to communicate with the instructor. While sending an email, write the name of the course and then the subject. For example if you want to write about arranging an appointment, the subject should be "1212- appointment". Please send email from gsu email.

Lecture: MWF → 12.00 – 12.50 PM (PSC 255)

Office hours: MW 10.30 – 11.30 PM; Fridays by appointment

Text: Chemistry: A Molecular Approach with MasteringChemistry, 3/E by Nivaldo J. Tro
ISBN-10: 0321804716 | ISBN-13: 9780321804716
<http://www.pearsonhighered.com/educator/product/Chemistry-A-Molecular-Approach-Plus-MasteringChemistry-with-eText-Access-Card-Package/9780321804716.page>



Overall course objectives: By the end of this course students will be able to understand, answer questions and work out problems involving the following topics

- Intermolecular forces
- Solutions, principles of solubility, different types of solution concentrations and their calculations.
- Reaction rates and rate Laws
- Dynamic equilibrium, equilibrium constants, LeChatelier's Principle
- Theories of acids and bases, strengths of acids and bases, pH and buffers, titration and pH curves
- Spontaneous and non-spontaneous process; changes in entropy; laws of thermodynamics and changes in free energy
- Oxidation-reduction reactions; cells and cell potentials

Class schedule:

Week of ...	Monday	Wednesday	Friday
Jan 13	Introduction	Review 1211	Review 1211
Jan 20	-----	Chp 11	Chp 11
Jan 27	Chp 11	Chp 12	Q1 ; Chp 12
Feb 3	Chp 12	Chp 13	Chp 13
Feb 10	E1	Chp 13	Chp 13
Feb 17	Chp 14	Chp 14	Q2 ; Chp 14
Feb 24	Chp 14	Chp 15	Chp 15
Mar 3	E2	Chp 15	Chp 15
Mar 10	Chp 15	Chp 15	Q3 ; Chp 16
Mar 17	-----	-----	-----
Mar 24	Chp 16	Chp 16	Chp 16
Mar 31	E3	Chp 16	Chp 17
Apr 7	Chp 17	Chp 17	Q4 ; Chp 17
Apr 14	Chp 18	Chp 18	Chp 18
Apr 21	Chp 18	Chp 18	E4
Apr 28	Mock Final	----	

Final Examination: May 5, 2014 at 10.45 AM. Please arrive at the classroom at 10.00 AM.

Point distribution

Exams (75 points each) (Best 3 of 4)	225
In-class quizzes (25 points each) (Best 3 of 4)	75
ASA and HW	100**
Laboratory	200*
Final exam (ACS standardized test)	<u>200</u>
Total:	800

* You **must** attend your laboratory section – at the end of the semester your laboratory instructor will give me a list of students in their section and their laboratory grades.

**Mastering Chem ASA and HW points will be calculated based on the percentage of homework credits. If homework credit was 100% hw points, 85 lecture points will be awarded.

Grading:

760 – 800 (95%-100%):	A+
720 – 759 (90%-94%):	A
696 – 719 (87%-89%):	A-
680 – 695 (85%-86%):	B+
640 – 679 (80%-84%):	B
624 – 639 (78%-79%):	B-
584 – 623 (73%-77%):	C+
520 – 583 (65%-72%):	C
480 – 519 (60%-64%):	C-
456 – 479 (57%-59%):	D
<456 (57%):	F

No make-up (or advance) examination or quizzes will be given. Missed examinations and quizzes will be recorded as a **zero**. The final examination is a standardized test (and *multiple choice*) provided by the American Chemical Society (ACS) and is nationally normalized.

To receive a passing grade in this course, the student MUST

1. Take the final exam
2. Meet certain minimum requirements in the laboratory portion of the course (see lab manual).

Reading assignments: At the end of every lecture, the instructor will allot reading assignments from the text book. Some of the questions from the quizzes and exams will be directly taken from reading assignments. It is in the best interest of the students to complete the reading assignments on time.

Mastering General Chemistry Assignments (ASA and HW): Should be submitted online using "Mastering General Chemistry". Use Course ID: THOTA1212SP2014. **Please register after Jan 13, 2014.** While registering for the HW, choose Chemistry: A Molecular Approach, 3/E by Nivaldo J. Tro. It is in the best interest of the students to check the due dates and submit ASA on time. ASA will not be opened once it closes down on the due date.

Examinations:

Exams will have multiple choice questions. No makeup or advance exams will be given. Missed examinations will be taken as a zero.

Quiz: Quizzes will not contain multiple choice questions. No makeup or advance quizzes will be given. Missed quizzes will be recorded as zero.

Laptops in classroom:

Some students use laptop computers to take notes in classroom. Such students **have to sit in the first row** of the classroom. Laptop computers should be used for taking notes **ONLY**. They should not be used for any other purposes.

Desire2Learn (D2L): All important announcements, answer keys and scores will be on D2L. It is in the best interest of the students to log into D2L two times a day to make sure that they are up to date with the course proceedings.

Talking in the classroom:

It is extremely distracting for the students and the instructor if students are talking (even whispering) in classroom. Please understand that every student has a right to ask questions in classroom. Please do not make **inappropriate facial expressions or talk** when other students are asking questions. It is also not a good idea to "cut-in" the conversation between the instructor and a student. Please be patient and let the instructor and the student finish the conversation before moving on to the next topic.

Leaving class early or arriving late to class:

If you need to leave the classroom early for any reason, please make sure to sit close to the door and leave the room as quietly as possible so as to not disturb other students. Arriving late to the classroom is not permitted. In case a student arrives late for an exam or quiz, no extra time will be given. If there is a valid reason for late arrival, for example an emergency, the student should discuss it with the instructor at the earliest.

Class Attendance and Preparation: Students are responsible for class preparation and for any material presented in the course of the lectures *whether or not it is contained in the textbook*. Chemistry is a *highly* structured course, with each new topic based on others previously developed. Thus it is *critical* for students to keep *consistently* up-to-date in their readings and assignments. To fall even one class period behind is to risk considerable difficulty in mastery of future material.

Therefore students should:

- 1) review previous material, especially if it was not perfectly understood
- 2) complete reading assignments *before* the lecture in which the topics are covered, or at least immediately after the lecture
- 3) complete assigned problems and exercises on time, with an emphasis on mastery of concepts and principles involved rather than looking for a formula that will give the expected answer (*remember that the question can be asked in a different way and not just with different numbers!*)

Students are expected to attend all classes and are responsible for all assignments and materials presented. In the event of unavoidable absences, it is the responsibility of *the student* to find out what materials were covered or what assignments made in his or her absence.

The University requires that faculty members must, on a date after the midpoint of the course to be set by the Provost (or designee)

1. give a WF to all those students who are on their rolls but no longer taking the class and
2. report the last day the student attended or turned in an assignment.

Some Examples of Unacceptable Student Conduct:

- Not following the testing procedures as instructed.
- Talking while your professor is lecturing.
- Arguing with the professor about student conduct.
- Not sitting up straight with paper directly in front of you during an exam.
- Not keeping your scantron or exam papers covered during an exam.
- Using a disrespectful tone of voice, harsh words or profanity.
- Making inappropriate gestures of any kind.
- Leaving class before the lecture is over.
- Letting your cell phone ring audibly during a lecture or exam.
- Having a cell phone available during a quiz or test.
- Not having your student ID for a quiz or test.

- Arriving late for lecture or for an exam.
- Allowing your laboratory data or answers to be copied.

Cell Phones and Beepers: In consideration of your classmates, turn off all sound alerts during every lecture and examinations. If you must have the cell phone during the daily lectures, please set it to ring on vibrate mode (silent). If you need to be on call during an exam, please inform the instructor and leave the phone with the instructor.

Chemistry Department Policy on Student Conduct and Integrity: The *Georgia State University Policy on Academic Honesty* is in force in this course. This includes but is not necessarily limited to infractions in the area of *plagiarism, cheating on examinations, unauthorized collaborations, falsification, and multiple submissions*. This policy is published in *On Campus: the Student Handbook*, which is available to all members of the university community.

All examinations must represent your individual effort, with no unauthorized aid. To either *give* or *receive* unauthorized information during an examination is cheating, as is the use of *any* unauthorized supplementary material. In addition all laboratory work performed in conjunction with this course must represent your individual effort. Only original data obtained by your own *in-laboratory* experimentation are permitted to be used, except when *expressly authorized* by your laboratory instructor. Data from supplementary sources, handbooks, reference literature, etc. must be *clearly referenced* (title, author, volume, pages(s), etc.). Falsification or destruction of data constitutes cheating as well. Conduct disruptive of class, examinations, or laboratories or falsification or destruction of information related to chemistry courses will be taken as a violation of the policies of the Board of Regents of the University System of Georgia and the Georgia State University Student Code of Conduct, Section 6.0. Any suspected offenses may be referred to the Chairman of the Department or the Dean of Students for appropriate disciplinary action.

The foregoing provides a general plan for the course, deviations from which may be necessary. The instructor will announce any such changes in class.

How to succeed in this course?

Please follow these steps to succeed in this class:

1. Form a study group (3 or 4 students per group).
2. Organize your notes. This depends on individual student organization skills.
One of my previous students used one notebook but color coded her notes. Her class notes were in black pen, study notes in blue and office hour notes in green. Another student had three note books for class, home and office hours.
3. Study ahead of class.
4. After each class discussion, read through discussed topic/s in the text book and make notes. Compare the notes to your class notes. Concentrate on the similarities and differences. Write ALL your questions down.
5. Work on questions based on the topic at the end of the chapter. Mark all a questions you could not answer.
6. Meet your study group for two hours every week. Discuss all the topics, questions

- and consolidate all your questions.
7. Go to instructor and TA office hours (with your group) and discuss all your questions.
 8. Work on practice exams and quizzes.
 9. After the quiz/exam is finished, make sure to check the answer key and solve all the questions where your answers were wrong.
 10. A student needs to study 10 Hrs/week to succeed in this class.