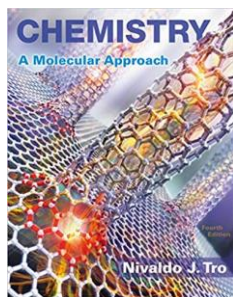


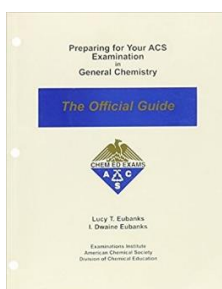
General Chemistry I (Chemistry 1211K) Syllabus, Spring 2019

Text: Chemistry: A molecular Approach by Nivaldo Tro, 4-th edition

ISBN-13: 978-0134112831, ISBN-10: 0134112830



Recommended material: Preparing for your ACS examination in general Chemistry: The official Guide, by Lucy T. Eubanks and I. Dwaine Eubanks.



Instructor: Dr. Shenghui Xue

Email: sxue1@gsu.edu

(Please send your email from your GSU email account only, with the course number in the subject)

Office phone: (404) 413-5603

Office: Courtland North, room 210

Lecture Time: MWF 12:30 – 1:20 PM

Location: Aderhold Learning Center 24

Office Hours: MTWF 9:30 – 10:30 PM

(other time by appointment through email with subject started with 1211K Please bring your book, your lecture notes and your attempt at the problem solving for office hours.)

Course Description: This is the first course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Chapters to be covered: 1 – 10.

Important Dates:

January 14	Class begins (no lab for the first week of Jan. 14-18)
January 21	MLK Holiday, no class
January 22	Lab starts.
Mar 5th	Semester midpoint, last day to withdraw with a "W"
March 18-24	Spring Break, no class
April 29	Last day of classes
Week of Apr. 29 - May 3	Final exam (Date and time to be announce in the class)

Course Material Requirements:

1. A scientific non-programmable calculator is required. An example of an acceptable calculator is the Texas Instruments TI-30XA.
2. Text book: Chemistry: A molecular Approach by Nivaldo Tro, 4-th edition
3. Recommended: ACS Study guide. Preparing for Your ACS Examination in General Chemistry. The suggested hand book preparing for ACS Examination for General chemistry: the official guide, by Lucky T Eubanks and I. Dwaine Eubanks

Learning outcomes:

The goals of this course are set forth by the chemistry department.

1. The student should demonstrate a general knowledge of the chemical concepts covered.
2. The student should demonstrate **the ability to successfully apply math skills to chemical systems.**
3. The student should demonstrate the ability to apply chemical principles to problems in physics, biology and medicine.

Learning objectives:

1. Matter and Measurements and Problem Solving
2. Atoms and Elements
3. Molecules, Compounds and Chemical Equations
4. Chemical Quantities and Aqueous Reactions
5. Gases
6. Thermochemistry
7. The Quantum-Mechanical Model of Atom
8. Periodic Properties of the Elements
9. Chemical Bonding I: The Lewis Model
10. Chemical Bonding II: Molecular shapes, Valence Bond Theory, and Molecular Orbital Theory

Attendance and Preparation Policy: Students are expected to attend all lectures. 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.

Students are strongly suggested:

1. **Reviewing** previous materials, especially if not perfectly understood.
2. **Completing** reading assignments *before* the new lecture starts or at least immediately after the new lecture.
3. **Completing** 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!)

* An average student needs about **12-15 hours of reading and practice besides the lecture time each week** (20:80 split between reading and problem solving) in order to earn a passing grade for this class. A student earning high B's and above typically does more than this. One of the best ways to prepare for exams and quizzes for this course is to **work as many problems as possible**, work in study groups, and attend office hours on if you have questions.

Withdrawal Policy:

A grade of **W** will be assigned if the student officially withdraws **by the midpoint**. After the midpoint, a withdrawal will result in a **WF** grade. The University requires that faculty members must, on a date after the midpoint of the course to be set by the Provost (or his 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.

About Incomplete:

An incomplete (**I** grade) is available only in the event that the course has been essentially completed. If the student misses the final exam due to illness, injury, or other special circumstance, he/she may request an **I** grade. **Documentation will be required confirming the illness or other difficulty.** The I grade must be made up within one semester. If not made up within one semester, the **I** grade automatically reverts to an **F**. Note that the student may receive an I grade only if he/she is passing the course but is unable to take the final exam **only**.

Classroom Conduct:

Students are expected to act with respect for the professor and other members of the class. In order to maintain a beneficial learning environment, Rude and/or Disruptive behavior will NOT be tolerated. Any student whose conduct is deemed inappropriate will be asked to leave the class. The following are considered rude and disruptive:

- Conducting private conversations in the class during lecture/discussion.
- Not paying attention during lecture/discussion.
- Consistently arriving late for class. (In the event of a late arrival, enter and take a seat quietly.)
- Leaving class early. (This should occur only in an emergency)
- Walking in-and-out of the classroom while class is in session.
- Ringing beepers and cellular phones. (These should be turned off sound while in class.)

The instructor reserves the right to seat students during quizzes and exams.

Course Grade: The course grade will be determined as a result of a student's individual work as follows:

Exams 1-4	300 pts	Best 3 of 4 exams, 100 pts each
Quizzes	100 pts	Best 8 of 10 quizzes, 12.5 points each
Final ACS Exam	200 pts	
Lab	200 pts	
Total	800 pts	

* You must attend your laboratory section – at the end of the semester your laboratory grade will be reported by the lab instructor.

Letter grades are assigned based on the following scale (which may be varied slightly):

Total Course Points Earned	Letter Grade
>750	A+
720-749	A
696-719	A-
684-695	B+
640-683	B
616-639	B-
584-615	C+
560-583	C
536-559	C-
480-535	D
<480	F

* Please see the instructor in person to discuss your scores or grades. Your class performances cannot be revealed/discussed by email or phone, etc. required by the university privacy policy.

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

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

Only a scientific NON-PROGRAMMABLE calculator is allowed during all exams and quizzes. The following devices are not allowed to be used during any exams and quizzes: Computers, iPods, Cell phones, iPads, Computerized dictionaries, Palm pilots, Programmable calculators, Molecular models, etc.

In-class exams and quizzes: There are 4 major exams (40 min each) and 10 quizzes in this course during this semester. **There will be no make-up exams and in-class quizzes without reasonable excuses and appropriate documents.** Missed examinations and quizzes will receive a grade of zero.

Quizzes can be given either in class (15 min) or online. Online quizzes will be set up via **iCollege**. The days and time for each quiz will be announced at least 1 day ahead **in the class** and/or through **GSU student email**. It is students' responsibility to check quizzes availability in iCollage after the date and time of each quiz being announced. Students are responsible to use trustful internet connection. There will be absolutely no make-up for online quizzes.

Final exam: is a standardized, multiple choice examination covering all the material from CHEM 1211. This test is provided by the American Chemical Society (ACS) and is nationally normalized. Under current schedule, student will take final ACS exam on Monday May 6 starting at 11:00 am in the regular lecture room. Students should arrive 15 min early, at 10:45 am. **However, such date, time and location could be changed. The confirmed date, time, and location of ACS final exam will be announced in the class and through the email in April.**

It is the student's responsibility to attend all exams/quizzes on time. No extra time will be given to those who show up late. If a student has any questions about a quiz or an exam score, the student needs to contact the instructor within 72 hours after the score is posted on iCollege. No score change would be made after that time.

Tentative schedule: The foregoing provides a general plan for the course, deviations from which may be necessary. Any such changes will be announced in class. Check your GSU email and iCollege often!

Week	Dates	Monday	Wednesday	Friday	
1	Jan. 14 - Jan. 18	Introduction	Chapter 1	Chapter 1	Quiz 1
2	Jan. 21 - Jan. 25	Holiday (MLK)	Chapter 2	Chapter 2	Quiz 2
3	Jan. 28 - Feb. 1	Chapter 2	Chapter 3	Chapter 3	Quiz 3
4	Feb. 4 - Feb. 8	Chapter 3	Catchup and review	Exam 1 (Chapters 1-3)	
5	Feb. 11 - Feb. 15	Chapter 4	Chapter 4	Chapter 4	Quiz 4
6	Feb. 18 - Feb.22	Chapter 5	Chapter 5	Chapter 5	Quiz 5
7	Feb. 25 - Mar. 1	Chapter 6	Chapter 6	Chapter 6	Quiz 6
8	Mar. 4 - Mar. 8	Chapter 6	Catchup and review	Exam 2 (Chapters 4-6)	Mar 5, Semester midpoint; last day to withdraw with a 'W'
9	Mar. 11 - Mar. 15	Chapter 7	Chapter 7	Chapter 7	Quiz 7
	Mar. 18 - Mar. 22	spring break			
10	Mar. 25 - Mar. 29	Chapter 7	Chapter 8	Chapter 8	Quiz 8
11	Apr. 1 - Apr. 5	Chapter 8	Chapter 8	Exam 3 (Chapters 7-8)	
12	Apr. 8 - Apr. 12	Chapter 9	Chapter 9	Chapter 9	Quiz 9
13	Apr. 15 - Apr. 19	Chapter 9	Chapter 10	Chapter 10	Quiz 10
14	Apr. 22 - Apr. 26	Chapter 10	Chapter 10	Exam 4 (Chapters 9-11)	
	Apr. 29 - May 7	Q & A , ACS final Exams			Date of ACS exam will be announced.

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.

Americans with Disabilities Act Statement: If you are a student who is disabled as defined under the Americans with Disabilities Act and require assistance or support services, please seek assistance through the Office of Disability Services.

Affirmative Action Statement: Georgia State University adheres to affirmative action policies designed to promote diversity and equal opportunity for all faculty and students.

Statement of Non-Discrimination: Georgia State University supports the Civil Rights Act of 1964, Executive Order #11246, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act. No person shall, on the basis of age, race, religion, color, gender, sexual orientation, national origin or disability, be excluded from participation in, or be denied the benefits of, or be subjected to discrimination under any program or activity of the college.