

Survey of Chemistry I

Chemistry 1151 K

Course Syllabus Summer 2014

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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 "1151- appointment". Please send email from gsu email.

Lecture: MWF → 12.00 Noon – 1.40 PM (ALC 5)

Office hours: MW 2.00 – 4.00 PM

Text Book: General Organic and Biological Chemistry: Structures of Life

Karen C. Timberlake

ISBN-13: 978-0-321-75089-1

ISBN-10: 0-321-75089-6

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

- Rules regarding significant figures in mathematical operations and unit conversions
- Basics of atomic structure and Trends in periodic table and electronic configurations
- Types of bonding, nomenclature of inorganic compounds, Lewis structures and shapes of molecules.
- Balancing chemical equations, conversions among mole, mass and number of particles and stoichiometric calculations and types of reactions
- Basic principles of thermochemistry, kinetics and equilibrium
- Properties of gases and gas laws
- Solutions, principles of solubility, different types of solution concentrations and their calculations.
- Theories of acids and bases, strengths of acids and bases, pH and buffers
- Basic principles of nuclear chemistry.

Class schedule:

Week of ...	Monday	Wednesday	Friday
Jun 9	Intro; Pre course assessment	Chp 1	Chp 2
Jun 16	Chp 3	Chp 3	Chp 4
Jun 23	Chp 5	Chp 5	Chp 6
Jun 30	Chp 6	E1	----
Jul 7	Chp 6	Chp 7	Chp 8
Jul 14	Chp 9	Chp 9	Chp 10
Jul 21	Chp 10	Chp 10	E2
Jul 28	Review Exam		

Final Examination: Aug 1st, 10.45 AM. Please be at the classroom by 10.15 AM.

Point distribution

Exams (E) (100 points each)	200
Online Quizzes	100
In class quizzes	100
Laboratory	200
Final exam (ACS standardized test)	<u>200</u>
Total:	800

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).

Online Quizzes: Should be submitted online using “Mastering General Chemistry”. Use **Course ID: THOTA1151SU2014. Please register after Jun 9th, 2014.** While registering, choose Timberlake, General Organic and Biological Chemistry, 4e. It is in the best interest of the students to check the due dates and submit quizzes on time. Quizzes 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.

In class Quizzes: Quizzes will not contain multiple choice questions. There will be a minimum of one in class quiz per class. **In class quizzes** will be based on pre class videos and assignments. 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.

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?

The following steps are suggested 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. 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.
4. Work on questions based on the topic at the end of the chapter. Mark all a questions you could not answer.
5. Meet your study group for two hours every week. Discuss all the topics, questions and consolidate all your questions.
6. Go to instructor and TA office hours (with your group) and discuss all your questions.
7. Work on practice exams and quizzes.
8. After the quiz/exam is finished, make sure to check the answer key and solve all the questions where your answers were wrong.
9. Study 10 Hrs/week