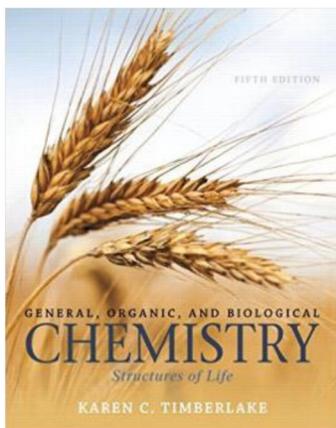


Survey of Chemistry (I) CHEM 1151K Syllabus, Spring 2018

Text book: General, Organic, and Biological Chemistry: Structures of Life 5th Edition ***
by Karen C. Timberlake (Author). **4-th Edition is acceptable**
(ISBN-13: 978-0321967466; ISBN-10: 0321967461)



Instructor: Dr. Bin Xu

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

Office phone: (404) 413-5567

Office: Courtland North, room 203

Lecture Time: MWF 3:00 – 3:50 PM

Location: Classroom South 608

Office Hours: MW 4:15 – 5:15 PM (other time by appointment. 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 survey of chemistry and applications of chemistry for science and non-science majors. Chapters 1-11 will be covered.

Important Dates:

January 08	Class begins (no lab for the first week of Jan. 08-14)
January 15	MLK Holiday, no class
January 16	Lab starts.
February 27	Semester midpoint, last day to withdraw with a “W”
March 12-18	Spring Break
April 23	Last day of classes
April 30	Final exam (1:30- 4:00 pm)

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: General, Organic, and Biological Chemistry: Structures of Life by Karen C. Timberlake (Author).

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) Scientific method
- 2) Measurements, significant figures, and conversion factors
- 3) Classification of matter and energy
- 4) Structure of atom: sub-atomic particles, and orbitals, etc.
- 5) Elements and Symbols.
- 6) Periodic Table: Trends in Periodic Table
- 7) Chemical bond: Types of chemical bond; Nomenclature.
- 8) Chemical reactions and Quantities
- 9) Gases Laws
- 10) Solutions and Types of Concentrations
- 11) Basic concepts of chemical kinetics and equilibrium
- 12) Acids and Bases: pH of solutions; Buffers

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 a weekly base.

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.)

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

In-class Exam	300 pts	three exams; 100 pts each
In-class Quiz	50 pts	five quizzes; 10 pts each
Pre-chapter Quiz	50 pts	ten pre-chapter quizzes; 5 pts 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

>750
720-749
696-719
684-695
640-683

Letter Grade

A+
A
A-
B+
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 three exams (40 minutes each) and five quizzes (15 minutes each) during the semester. **No make-up exams or quizzes are offered without reasonable excuses and appropriate documents.** Missed exams and quizzes will receive a grade of *zero*.

Final exam: it is a **comprehensive**, multiple choice-exam covering all the materials for CHEM 1151, provided by the American Chemical Society (ACS) and normalized nationally.

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.**

Pre-Chapter quizzes: These are on-line quizzes (for chapter 2 – 11) including questions on definitions and major concepts with the purpose to get students skim through the textbook/slides and become familiar with terminology, strategies, and main concepts before lectures. Quizzes will be set up via iCollege. Each quiz will be open 24 hours before the new chapter is given. Students must be aware that sometime the pre-chapter quizzes might be open during the weekend time. It is students' responsibility to check quizzes availability. Students are responsible to use trustful internet connection. **There will be absolutely no make-up for pre-chapter quizzes.**

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		Monday	Wednesday	Friday	Pre-chapter Quiz (iCollege)
#1	Jan. 8 - Jan.12	Introduction	Chapter 1	Chapter 1	
#2	Jan. 15 - Jan. 19	MLK holiday	Chapter 2	Chapter 2	Chapter 2: Jan. 16
#3	Jan. 22 - Jan. 26	Chapter 2	Chapter 3	Chapter 3 / Quiz 1	Chapter 3: Jan. 23
#4	Jan. 29 - Feb.2	Chapter 3	Chapter 4	Chapter 4	Chapter 4: Jan. 30
#5	Feb. 5 - Feb. 9	Chapter 4	Chapter 5	Exam 1	Chapter 5: Feb. 6
#6	Feb. 12 - Feb. 16	Chapter 5	Chapter 6	Chapter 6	Chapter 6: Feb. 13
#7	Feb. 19 - Feb. 23	Chapter 6	Chapter 7	Chapter 7 / Quiz 2	Chapter 7: Feb. 20
#8	Feb. 26 - Mar. 2	Chapter 7	Chapter 7	Chapter 8	Chapter 8: Feb. 29
#9	Mar. 5 - Mar. 9	Chapter 8	Chapter 8	Exam 2	
	Mar. 12 - Mar.16	Spring Break			
#10	Mar. 19 - Mar. 23	Chapter 9	Chapter 9	Chapter 9 / Quiz 3	Chapter 9: Mar. 18
#11	Mar. 26 - Mar. 30	Chapter 9	Chapter 9	Chapter 10	Chapter 10: Mar. 29
#12	Apr. 2 - Apr. 6	Chapter 10	Chapter 10	Chapter 10 / Quiz 4	
#13	Apr. 9 - Apr. 13	Chapter 11	Chapter 11	Chapter 11 / Quiz 5	Chapter 11: Apr. 8
#14	Apr. 16 - Apr. 20	Chapter 11	Review	Exam 3	
#15	Apr. 23	Q & A			

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.