

SURVEY OF CHEMISTRY II
CHEM 1152
SPRING 2007

GENERAL INFORMATION

Instructor	Dr Anne GAQUERE Office 2-119 TLC Phone 678-839-6026 email: agaquere@westga.edu
Class time	T, R 9.30 am – 11.45 am, TLC 3108.
Textbook	<i>General, Organic and Biological Chemistry</i> , Platinum Edition, by Timberlake.
Office hours	M, W: 8.00 am – 1.00 pm

Purpose

This is the second course in a two-semester sequence covering the elementary principles of general, organic and biochemistry for allied health professions and non-science major students. This is the continuation of CHEM1151k in the areas of organic chemistry and biochemistry. This course includes organic structures and functional groups, the chemistry of carbohydrates, lipids, proteins, enzymes, hormones and nucleic acids. A good knowledge of general chemistry (CHEM1151k) is assumed.

Under the studio format, the class meets for 2 hours and 15 minutes 2 days per week and workshops will meet an additional 2 hours per week. Laboratory activities will include qualitative and quantitative experiments.

On each examination, you are supposed to be able to answer questions concerning topics studied previously. Everything that has been taught since the beginning of the class is supposed to be known at any point of time. There will be 4 examinations during the semester plus the final one, which is an American Chemical Society standardized examination. Unannounced in class quizzes will be given, the lowest quiz will be dropped. No make-up quizzes will be given. If you miss an examination, the grade obtained on the final examination will replace the missing grade, if you miss two examinations, the grade obtained on the final examination will replace both of them...

Learning outcomes

Students who complete this course are expected to develop:

- an understanding of the basic concepts covered in the text content,
- an awareness of the role of organic and biochemistry in everyday life,
- a basic comprehension of some applications of organic and biochemistry to human physiology,
- the ability to communicate scientific ideas.

Chapters to be covered

Chapter 11: Introduction to organic chemistry.

Chapter 12: Alkanes.

Chapter 13: Alkenes – Alkynes.

Chapter 14: Alcohols, phenols, thiols and ethers.

Chapter 15: Aldehydes, ketones, chiral molecules.

Chapter 16: Carbohydrates.

Chapter 17: Carboxylic acids and esters.

Chapter 18: Lipids.

Chapter 19: Amines and amides.

Chapter 20: Amino acids and proteins.

Chapter 21: Enzymes.

Chapter 22: Nucleic acids and protein synthesis.

Chapter 23: Metabolic pathways for carbohydrates.

Chapter 24: Metabolism and energy production.

Chapter 25: Metabolic pathways for lipids.

Study Skills

The best way to make sure that you have thoroughly understood the material covered in class is to read the textbook, work through the appropriate problems, and participate in workshop, on a REGULAR BASIS. Keep track of the end of chapter problems that give you the most difficulty, and try similar problems for additional practice and review. Keep up with the class, and ask questions frequently in workshop and during the office hours.

In-Class Assignments

These assignments consist of all activities that take place during the course of each session. They include online exercises, study cases, all computer and laboratory activities. All of the results from these activities will be submitted to the instructor at the beginning of the next session (unless otherwise stated), late reports will never be taken into consideration. There will be no makeup sessions. Attendance to class meetings is required and will be recorded. You may earn a zero out of one hundred on the activity of the day you missed without a valid excuse (medical certificate...). Also you are required to attend at least 70% of the activities to be eligible to pass the course. You are required to take the final examination to be eligible to pass the course.

Schedule for the examinations

Examination 1: Thursday, February 1st, Ch 11, 12, 13.

Examination 2: Tuesday, February 27th, Ch 14, 15, 16.

Examination 3: Thursday, April 5th, Ch 17, 18, 19, 20.

Examination 4: Tuesday, April 24th, Ch 21, 22, 23, 24, 25.

Final Examination: Thursday, May 4th, 8 am – 10 am.

You will be given one hour to complete the exam and no exam will be dropped. The exam dates will not be postponed, please make every attempt to be present at these times since no makeup exam will be given. Please arrive on time, as no extra time will be given if you arrive late. If you arrive consistently late to class, points will be deducted from your final point total (instructor points).

If there is a conflict with the final examination time, you must provide me the written authorization from the Dean of Arts & Sciences to move your final examination time. This note should be delivered to me at least two weeks prior to the scheduled final examination time.

Each examination will be closed book. After each examination, you should go over your paper and understand what you missed.

Bonus points may be given under the form of a quiz at the instructor's discretion.

Grades for the examinations will be posted on webCT vista in a timely manner. WebCT is the only way to communicate with me by email as it is an official email address. Everything posted on webCT at any time is supposed to be known.

Policy on cheating- Academic misconduct

Cheating on a lab report or a quiz or any assignment for the first time will result in a score of zero for that particular paper. If the student is caught cheating a second time, his grade for the entire course will be an F.

Furthermore, if a student is caught cheating on an examination, he will automatically receive a grade F for the entire course. Any infraction will be taken before the disciplinary committee and played out to the fullest extent. Cheating will never be tolerated and I may decide to take additional resolutions if necessary.

Unless a special medical condition (medical certificate required), no student will be allowed the room during an exam. Leaving the room means to be finished with the exam, completed or not.

Workshop Chemistry

There will be “workshops” conducted in CHEM 1152. In workshops, the large class is broken down into smaller groups. In addition to regularly scheduled lecture and laboratory sessions, it is required to attend a workshop that meets once a week outside of class to discuss chemistry problems and improve your understanding of the material.

Workshops are something like study groups, with three prominent differences.

1. Each week’s workshop will go over a set of assigned questions. Please obtain your workbook by purchasing a voucher at the bookstore. Present this voucher at the chemistry office to obtain the workbook, which contains material for each workshop, week by week.
2. Each workshop will be led by an upper-level student leader who has had the course previously and who has been trained for undertaking this responsibility. The leader will act more as a facilitator than as a tutor. The purpose of workshops is to provide practice and build confidence in your own ability to do chemistry problem-solving.
3. Homework will be due in workshop and checked for completion.

Each workshop will be scheduled for a two-hour block of time. Why should you want to commit to two more hours spent on chemistry each week in addition to your time in lecture and lab? Here are some good reasons.

- To be successful in chemistry, you should plan, on average, to spend at least six hours a week outside of class/lab meetings studying chemistry. The workshop can be two of them.
- Working with other students and with a leader can be more productive than doing all your studying alone. In the structured workshop setting other students can help you see something you missed and as you explain an idea to someone else it becomes clear in your own mind. Workshops at other institutions have found that students participating average significantly better on chemistry tests than those not attending workshops.
- It can directly affect your grade. A 15% contribution to your overall course average is to come from workshops and thus reduce how heavily your test scores will count.

SEMESTER GRADES

Your grade will be calculated based on the following formula:

$\% = 0.65 \times (\text{Exams} + \text{Quizzes} + \text{Homework}) + 0.10 \times (\text{Lab Activities and internet assignments}) + 0.10 \text{ Instructor Points} + 0.15 \times \text{Workshop}$

Note: All exam, quiz and lab activity grades will be based on your ability to DEMONSTRATE full understanding of the material (with full credit given only if you SHOW ALL YOUR WORK, not just for obtaining the correct answer).

Course %	Letter Grade
90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0% - 59%	F

Workshop Grades: You are not judged on actual right answers, but the effort you put in. The workshop portion of your grade, will be based on:

1. Attendance. Don't arrive late; don't leave early.
2. Participation in group efforts to solve problems.
3. Preparation. Practice problems should have been solved, or at least attempted, before the relevant workshop.
4. Attitude.

Policies

Food or beverages are strictly forbidden in this classroom. If a student brings in food or beverage, the item will be thrown away and the student will receive a zero for the activity of the day.

The use of cell phones is prohibited at any time during class time. If you bring a laptop in class, you are allowed to use it only to take notes and nothing else.

Lateness will be penalized by deduction from the grade for the activity of the day (10 points for the 1st time, 20 points for the 2nd one...).

Once lab has started (Once any student has started handling chemicals, not necessarily you), safety glasses are required to be worn at all times. If you do not wear your safety glasses (even for a couple of minutes, even if you are not handling chemicals but others are) in order to protect your eyes, you will be expelled from the lab without any appeal and you will receive a grade of zero for the experiment. I will strictly enforce this policy all year long.

If you leave before the end of the lab, you must have all the data proving that you have actually performed the experiment and you must ask me if it is OK for you to leave. I will check from time to time if you have really done everything you are supposed to do during the session (and nothing else), if you are unable to show me the products you are working with, this will be considered as a failure of respecting this policy.

Any failure of respecting this policy will result in you being expelled of the classroom for the day, as well as a grade of zero for the experiment.

You are expected to wear your goggles at all time, write down the notes from the board on your notebook, cooperate, have a good attitude and leave a clean station. Doing so will not improve your grade, but not doing so will lower it.

Instructor points

This list is not exhaustive, but it will help you get a good idea of what instructor points means. Some points are more important than the other ones and in some cases missing one of them can actually reduce your instructor points to zero.

It includes:

- * Do you respect the safety rules?
- * Perform the experiment or study the in-class assignment
- * Work within the time assigned
- * Behavior during class (disruptive behavior...)
- * On time or late for class?
- * Turn in your homework late?
- * Is your homework ready when you step in the lab?
- * Do I have to tell you to wear your goggles repeatedly?
- * Are you doing what you are supposed to do and only what you are supposed to?
- * How do you behave with me, the teaching assistant and the other students?
- * Disturbing the class by arriving late, talking, using cell phones, laptops (other than for taking notes), will result in a score of zero for the instructor points.
- * Bringing food or beverages.

To ensure a good grade for the instructor points, active participation in the class is mandatory.