SURVEY OF CHEMISTRY II
CHEM 1152
SPRING 2018

Instructor: John Hansen, Phone: 678 839-6021  e-mail: jhansen@westga.edu
Lectures: T, R  8:00 – 10:15 am
Office: Room 2126
Office Hours: M 07:00 – 9:00, 12:30 - 14:30
          T  13:00 – 15:00
          W  07:00 -11:00

Text:  General, Organic and Biological Chemistry, Karen Timberlake.

Please Note:
For important policy information, i.e., the UWG Honor Code, Email, and Credit Hour policies, as well as information on Academic Support and Online Courses, please review the information found in the Common Language for Course Syllabi documentation at http://www.westga.edu/assetsDept/vpaa/Common_Language_for_Course_Syllabi.pdf. Additions and updates are made as institution, state, and federal standards change, so please review it each semester.

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 CHEM1151 in the areas of organic chemistry and biochemistry. Students must have earned a C or higher in CHEM 1151 to attend CHEM 1152, they will be withdrawn from the class if they have not passed CHEM 1151 (or equivalent). 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 (CHEM1151) is assumed.

Learning Outcomes

On each examination (closed book), you are supposed to be able to answer questions concerning topics previously studied. Everything that has been taught since the beginning of the class is expected to be known. There will be 4 examinations during the semester plus the final one, which is an American Chemical Society standardized examination.

Students who complete this course are expected to

- Describe and explain intermolecular forces.
- Display an ability to name organic molecules.
- Recall some of the basic reactions of organic molecules.
• Make connections between the chemistry of organic molecules and the chemistry of physiologically relevant molecules.
• Describe the properties and behavior of macromolecules (polysaccharides, lipids, nucleic acids, proteins).
• Explain how the oxidation state of carbon plays a role in bioenergetics.
• Describe some basic biochemical processes, such as glycolysis, Kreb’s cycle, and oxidative phosphorylation.

**Chapters to be covered**

Chapter 12: Hydrocarbons.
Chapter 13: Alcohols, phenols, thiols and ethers.
Chapter 14: Aldehydes, ketones and chiral molecules.
Chapter 15: Carbohydrates.
Chapter 16: Carboxylic acids and esters.
Chapter 17: Lipids.
Chapter 18: Amines and amides.
Chapter 19: Amino acids and proteins.
Chapter 20: Enzymes, Vitamins.
Chapter 21: Nucleic acids and protein synthesis.
Chapter 22: Metabolic pathways for carbohydrates.
Chapter 23: Metabolic pathways and energy production.
Chapter 24: Metabolic pathways for lipids and amino acids.

**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. Also, attempt working through the end of chapter problems that give you the most difficulty.

**Laboratory Reports and In-Class Assignments:**

A laboratory exercise requires your presence; another student cannot make observations and record data in proxy for you. If you are absent for a laboratory exercise, you may not submit a laboratory report. Likewise, another student cannot write your laboratory report. Your laboratory report contains your data and your interpretation of that data, even though you may be working along with others to carry out the laboratory exercise. If you are more than ten minutes late for class, then you are considered absent and not allowed to submit a laboratory report for that day’s laboratory activity. There will be no opportunities to make up a missing laboratory activity. You must have a student ID on your person while doing a laboratory activity. If you do not have your student ID with you, your laboratory activity will not count toward your grade, and you will receive a grade of zero on that activity.
Laboratory reports are due before class of the next class period. Late lab reports will not be accepted and count as a grade of zero. Reports will be written neatly, assembled neatly, pages aligned and stapled together neatly. First and last names will be printed neatly on all of the pages stapled together. The name printed on the lab report will be the exact name that appears for you in Courseden. Reports that are handed in and do not follow these criterion will be given a grade of zero.

In-class assignments consist of all activities that take place during the class period. Each assignment will count the same as a laboratory report and be treated like a laboratory report. In-class assignments will be written neatly, assembled neatly, pages aligned and stapled together neatly. First and last names will be printed neatly on all of the pages stapled together. The name printed on the assignment will be the exact name that appears for you in Courseden. Assignments that are handed in and do not follow these criterion will be given a grade of zero.

I will drop the lowest grade for either a laboratory report or in-class assignment.

Tentative Schedule for Examinations

Examination 1: Thursday February 1st, Chapters 12 – 14.
Examination 2: Thursday, February 22nd, Chapters 12 – 17.
Examination 3: Thursday, March 29th, Chapters 12 – 20.
Examination 4: Thursday, April 26th, Entire course material.
Final Examination: Tuesday, May 8th, 8:00 - 10:00 am: Entire course material.

Every exam will cover material seen in class starting from the first day of class. Each examination will be closed book. After each examination, you should go over your paper and understand what you missed. No exam will be dropped and there will be no makeup exams. First and last names will be printed neatly on the exam. The name printed on the exam will be the exact name that appears for you in Courseden. You must have a student ID on your person while taking an exam. If you do not have your student ID with you, you will receive a grade of zero on that exam.

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.

Policy on cheating- Academic misconduct

Cheating on a lab report or or any assignment 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/she 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 actions if necessary.
Unless a special medical condition (medical certificate required), no student will be allowed to leave the room during an exam. Leaving the room means to be finished with the exam, completed or not. While taking an exam, no calculator, no cell phone, no electronic device of any kind will be permitted. Absolutely nothing else on the desks (no bag or purse or clothing for instance) will be allowed during an exam, besides what the instructor gives you and your pens/pencils/erasers. If any electronic device (cell phone, calculator, etc.) is near you while you are taking an exam, it will be counted as an incidence of cheating!

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. Each workshop will be scheduled for a two-hour block of time. Please see the workshop syllabus for more details.

Semester Grades

Your grade will be calculated based on the following formula:

\[
\% = 0.65 \times (\text{Exams}) + 0.15 \times (\text{in-class activities}) + 0.05 \times \text{Instructor Points} + 0.15 \times \text{Workshop}
\]

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 arriving at the correct answer).

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<thead>
<tr>
<th>Course %</th>
<th>Letter Grade</th>
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<tr>
<td>90% - 100%</td>
<td>A</td>
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<tr>
<td>80% - 89%</td>
<td>B</td>
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<td>70% - 79%</td>
<td>C</td>
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<td>60% - 69%</td>
<td>D</td>
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<td>0% - 59%</td>
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Policies

1. You are responsible for all material covered and all announcements made in class. Absence from class does not excuse or relieve you of this responsibility. If you miss a class, I would suggest contacting a fellow classmate to find out what you have missed.
2. Your attendance at all class times is critical to your success in this course. I reserve the right to withdraw you from class roles due to flagrant absences or tardiness.

3. NO CELL PHONES!! They need to be placed completely out of my sight and turned off during my class. I do mean put it away (not left on your belt). Place them in your packs or leave them in your vehicle. If you violate this rule you will be asked to leave my class, and you will be considered absent for that day. If you violate this rule during an exam it will be considered as an incident of cheating.

4. If you contact me by email you are expected to use your UWG account.

5. All assignments including lab reports must be handed into me as hard copies. I will not accept assignment or reports via e-mail! If multiple pages are required they will be neatly stapled together. Pages dog-eared together will not be accepted.

6. Lectures and hand outs (including exams) are copy righted materials. Any audio or video recording of my lectures without prior permission is forbidden.

7. 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.

8. The use of cell phones or other electronic devices is prohibited at any time during class time and will be confiscated for the class period. If you bring a laptop in class, you are allowed to use it only to take notes and nothing else. If using inappropriately a computer during class time, a student will be asked to leave the classroom and will receive a zero for that day.

9. 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…).

10. 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.

11. 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.

12. 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 that day’s activity.

13. You are expected to wear your goggles at all time during lab, write down the notes from the board on your notebook, solve the in-class problems, 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. Please keep in mind that you will not be allowed to leave the room at your convenience, that cell phones, text messengers and other electronic devices (ipod…) are to be turned off and that you are to be working on your assignment and nothing else.