**Chemistry 121 - Section 001, winter 2010, 11:00 am- 12:15 pm CTH 328**

**Introduction to Organic Chemistry and Biochemistry**

**Instructor**: Dr. Upali Siriwardane **Office**: 311 Carson Taylor Hall **Phone**: 257-4941

**Office hours**: MTW 8:00 - 10:00 am; TT 9:00 - 10:00 am 1:00 - 2:00 pm **E-mail**: Upali@chem.latech.edu

**Course Homepage**: <http://moodle.latech.edu/> Select Chemistry 121 –Section 001, Winter 2011

**Course objective**: This is the second of a series of chemistry courses designed primarily for non-science majors who have an interest in the subject as it will be applied to future work in allied health careers. It attempts to give the student a general appreciation of the field of organic chemistry with a working knowledge of certain of its more important phases as summarized in course syllabus and course calendar.

**Text**:  **General, Organic, and Biological Chemistry**, 5th Edition H. Stephen Stoker

ISBN-10: 0547152817  ISBN-13: 9780547152813 and also purchase the solution manual if you need more help.

**OWL**:  Students are required to buy access to [**OWL (Online Web-bases Learning)**](http://owl.cengage.com/owl-c/register/owlmgr.cgi?Mode=2&ArchivedDatabaseID=156&CategoryID=58) program offered by Brooks/Cole's Thompson Learning Website if the access code didn’t come with the textbook.  You will be earning (10% points) towards your grade based on your participation on OWL system activities. Concept Mastery (CM) and Assignments can be done though OWL concepts and given in the OWL page.  OWL provides interactive help and more questions in case you made mistakes.

**Text e-book and OWL Bundled package:**

**e-book of Organic, and Biological Chemistry**, 5th Edition H. Stephen Stoker bundled with OWL could also be purchased at the bookstore or the Brooks/Cole's Thompson Learning/Cengage web site:

**Molecular model kits**: To be used in class and examinations to aid in the understanding of stereochemistry.

**Molecular model kits** may be purchased from Louisiana Tech American Chemical Society Student Affiliates.

**Supplements**: A full copy of my class lecture slides, homework, exam review guides and sample exam questions are available online: <http://blackboard.latech.edu/> and following the appropriate menu bars.

**Course Evaluation**: The final course grade will be based on a score of 1000 pts. and converted to % (NO CURVE).

|  |  |  |
| --- | --- | --- |
| 1. Four hourly exams:
 | 60% (@ 150 pts. each) | \*600 pts. (60%) |
| 1. Comprehensive

Make-up Exam:  | @ 150 pts will replace a missed test  |        pts. |
| 1. Group Homework:
 | 20% (@20 pts. Each and averaged) | 200 pts. (30%) |
| 1. 4 OWL Assig. One each before Test
 | 10% (@ 25 pts. Each and averaged) | \*100 pts. (10%)  |
| 1. Quizzes:
 | 10% (@10 pts. Each and averaged) | 100 pts. (10%) |
|  Course Total |  |  1000 pts.  |

\*If you didn’t do OWL your four hourly exams scores will be counted as 700 pts or 70%.

Quizzes, Group Homework and OWL Assignments are intended to improve your test scores and

The test scores should reflect your learning and grade more accurately.

**Bonus points:** (50 maximum make-up pts.)

|  |  |  |
| --- | --- | --- |
| 1. Bonus "ESSAY" assignment:
 | 40 pts.  |  40 pts. (4%) |
| 1. Class& group participation:
 | 10 pts. |  10 pts. (1%) |
|  Bonus Total |  |  50 pts. (5%) |

**\* If you missed significant amount of classes (3 or more) and quizzes and also late in group homework submissions (2 or more) you are not eligible for any kind of bonus points. In cases of students with disputed, late and/or missing assignment, instructor reserves the right to calculate their course grade based on the averages of the four tests.**

**Class attendance**:

You should attend all classes regularly and punctually. Attending classes just to take tests only on test days does not reflect the complete learning/participation/experience provided in this course. The points you earned for the about 20 in-class quizzes also reflect you class attendance/ participation/experience. Failure to attend classes without proper excuses will lead to losing points for the in-class quizzes you missed and participation bonus and that may lead to a lower grade for you in this course.

**Course performance**:

You should read, study class notes regularly and punctually on the schedule out lined on calendar. Taking tests only on test days does not reflect the complete learning/participation/experience provided in this course. The points you earned for the in quizzes, group homework and OWL assignments reflect your class participation/experience. Failure to do so without proper excuses will lead to losing points for quizzes and assignments you missed and may lead to a lower grade for you in this course.

**Grading Policy:**

**Grading Scale**: A = 100 - 90%(1000-899 pts)  B = 89 - 80%(898-799 pts)   C = 70 - 690% (798-699 pts)   D = 69 - 60% (698-599 pts) F = below 60% (598-000 pts)

**Grades will be posted on Blackboard**:

Grades will be posted under Course Information for CHEM 121 on [Moodle](http://moodle.latech.edu/). Quiz, group homework and OWL assignment should be done on the times specified in the calendar and it is your responsibility to keep records of them in a course folder to show that you have completed them and to use as study material for the final exam.  Any answer key that you need will be sent to you in e-mail or posted on the bulletin board outside my office CTH 311.

**Tests**: There will be four hourly exams during class and a comprehensive make up exam. Contact me in advance if you will miss an test due to a University allowed absence and I will allow you take the test before the test date. If you could not take the test before the specified date and you have a **University** allowed excuse you will be eligible for making up the missed test taking the **Comprehensive Make-up Test** at the end of the quarter. Turning in group homework late without penalty and/or dropping a quiz you need to bring a dated proof of **University** allowed excuses within **a week of the missed day**(s). If astudent made less than 105 or 70% in one tests and wanting to improve your test scores taking this comprehensive makeup test will replace your lowest test score, if you scored higher.

Hourly Exams: **December 17, 2010**, January **19,**  **February 7** and **February 23, 2010**; Comprehensive Make Up Exam: **February 24, 2011,** 11:00-2:15 pm, CTH 328  Bring your **Tech ID**, **Scantron Sheet 882-E** for all Exams

**NOTE**: For all Tests you must bring the following: your student ID, a large green Scantron sheet 882-E (purchase at least four at Tech book store), sharpened pencils, and you may also bring a molecular model kit. **NO cell phones are allowed.** **Use of computer is not allowed during lectures unless it is a disability requirement!!**

 **Quizzes**: There will be about 20 in-class quizzes -- about one per lecture -- worth 10 points each. Each quiz will consist of a simple question pertaining to the material we have covered on or before that day. Quiz sheets with the date will be available at the beginning of each class to be used for each daily quiz - pick one up and fill in your name and study group name. Why a quiz every class? 1) this encourages you to come to class at the same time can learn more than on your own; 2) this assures me that you will be paying attention in class instead of talking to your neighbor, reading the newspaper, etc.; 3) how well you do on the quiz lets me know how well you are learning.

**Homework**: There will be about 10 [graded homework assignments](http://www.chem.latech.edu/~upali/chem121Group-HW.html). Students can work on these in "organic functional group" study groups composed of one to six students. **NOTE:** Each student in the group must turn in their own hand-written copy of the assignment with their name printed in the upper right hand corner. The deadline for study group sign up is **December 8**. Groups will be referred to by the assigned organic functional group names. Failure to sign up for a group will result in the loss of bonus points for class participation. You are welcome to change groups at any time, but you must let me know if you switch groups. **Your group** **homework handed in late (without justification) will lose 10 % points per day past the due date.** The due date for the homework as found on course calendar  means that the homework is due in class on that day before 12:15 PM. Blank homework sheets are available on the internet and the answer keys will be posted for homework and exams on the bulletin board outside CTH 311. There will also be [nongraded text book homework problems](http://www.chem.lsu.edu/lucid/syllabi/2060/Assinged-problems.htm) assigned. It is **very important** that you do the non-graded text book problems because questions based on these will also appear on the exams. If after attempting on your own, using solution manual and with your study group you have any trouble with the graded or non-graded homework problems, you should see me immediately!

**Class Discussion**: I will be asking questions in class to study groups. If your group is sitting together, then you will be able to discuss the question for a short period of time and answer as a group so tries to sit together. **Bonus credit** (maximum of 10 points) will be given to those who show up (remember also attendance is based on the quizzes) and answer the questions.

**Bonus Essay Assignment**: There will be one BONUS essay assignment. It will be a 3-4 page typed essay with at least 3 references or equivalent assignment on some chemistry topic and it will be worth 40 points. I will give you the topic during the first 2 weeks of class. The printed assignement can be handed in anytime before or **on February 18 by 12:15 PM in class.** Your groups can help on the bonus assignment,  but assignments from members of the same group must be different. In other words: **each member must select their own topic, turn in their own individual paper (written in your own words and style).**

**Helpful Hints for Learning Organic Chemistry:**

**Outside Class Assistance**:

If you can't meet with me during my office hours, then please contact me by phone/e-mail to make an appointment with me at different time. A couple of days before a exams, I will post a sample test (which will also be posted on the internet) and will have a review/help session during class time. If you need further help, see me during office hours, please make an appointment. You can also get help from the free tutors in the in your college or hire a tutor in the chemistry department (there are few chemistry majors who are tutors). If you get a message on your returned homework or exams or by e-mail that says to COME SEE ME IMMEDIATELY, do so immediately so that we can get you on track for a good grade in this course. Please try to come to my office and ask question when I have more time to answer them.

**Class Rules**:

No talking while I am lecturing. Turn cell phones off before entering class. You are expected to pay attention to my lecture in order to learn the material presented and to complete assignments on time. If you fail to do so, you will lose all available BONUS points. Any academic misconduct, whether premeditated or unpremeditated (as defined in the *Code of Student Conduct*), will be reported to the Office of the Dean of Students for appropriate actions.

**OWL concept Mastery and Assignments**:  There will be about 22 OWL Concept Mastery Activities -- about 2 per chapter -- worth 25 points each for OWL assignments before each test.  Each Concept Mastery section will consist of a simple question pertaining to the material you have read on day you are assigned to study.  Why a Concept Mastery Activities every day?  1) this requires you to read and complete tasks where you will learn more following the instructions; 2) this assures me that you will be paying attention to concepts and learning the course material; 3) how well you do on the mastery activities lets me know how well you are learning.

**Non-graded text book homework problems**

There will also be non-graded text book homework problems assigned.  It is **very important** that you do the non-graded textbook problems because questions based on these will also appear on the exams.  If after attempting on your own, using solution manual you have any trouble with the graded or non-graded homework problems, you should contact me by e-mail or phone!

**Helpful Hints for Learning General Chemistry:**

**1.**      **Survey the assigned material for overall concepts before starting online reading, quizzes and assignments-meaning SKIM READ RELEVENT SECTIONS IN THE BOOK or e-BOOK!**

**2.**      **Go back and read the same material for comprehension focusing on unclear areas.**

**3.**      **Work problems within the chapter during this second reading.**

**4.**      **Go online and read chapter lessons before your take OWL or Blackboard quizzes and assignments.**

**5.**      **Reread any remaining unclear areas.**

**6.**      **Work problems, and work problems within lesson plans and at the end of the chapter.  Work until you fully comprehend the concept.**

**7.**      **If you are still unclear about a concept, e-mail and send a question for discussion as you study but NOT on the day of the quiz, assuagement are due, or the day before the exam (by then it will be too late for you to truly absorb the material).**

**Course Activities**:

**Online tasks**:

•     Finding and printing assignments, slides and lecture notes.

•     Reading or downloading online resources such as library materials & web sites

•     Send e-mail to the professor if you had questions that could be handled briefly.

•   Completing OWL assignments and reading e-book.

**Off-line tasks**:

•     Reading assignments, textbooks, articles, etc.

•     Working on problems

•     Synthesizing materials and crafting outlines

•     Making a file collecting all your papers to show authenticity of your work.

**Code of Student Conduct:**

Complete honesty in all matters pertaining to this course is required as outlined in the Louisiana Tech University Bulletin (catalog) and the Louisiana Tech Honor Code. You must not attempt to copy or download the official online TESTS, or share questions from these tests with other persons. You must not use your textbook while taking an official test and TEST must be taken independently without any outside assistance. No browsing allowed during the TEST and history will be recorded. Any academic misconduct, whether premeditated or unpremeditated (as defined in the *Code of Student Conduct*), will be reported to the Office of the Dean of Students for appropriate actions.

 **Materials covered:**

**Chapter Title**

**Test 1**
12.                 Saturated Hydrocarbons
13.                 Unsaturated Hydrocarbons
**Test 2**

14.                 Alcohols, Phenols, and Ethers
15.                 Aldehydes and Ketones
16.                 Carboxylic Acids, Esters, and Other Acid Derivatives
**Test 3**
17.                 Amines and Amides

18.                 Carbohydrates
19.                 Lipids
**Test 4**

20.                 Proteins
21.                 Enzymes and Vitamins
22.                 Nucleic Acids
**Self Study**

23.                 Biochemical Energy Production
24.                Carbohydrate Metabolism
25.                Lipid Metabolism
26.                Protein Metabolism

**Important Dates During the Winter 2010-11 Quarter:**

December    1 Classes begin

December 17 **Christmas holiday Begin** at the end of classes

January 3 **Christmas holiday Ends** classes start 8:00 a.m.

January 3 Classes resume, 8:00 a.m.

January   17 **ML King Jr., holiday**

January 18 Classes resume, 8:00 a.m.

February      4              Last day to drop courses or resign with "W" grades

February 24 Last day of classes

February 26 Grades “live” on Student BOSS

February 26 Commencement Day

**Changes on this syllabus:**

Schedules on this syllabus are not contractual and may be changed by the instructor when it becomes necessary to do so as determined by the instructor.  However, any changes that are deemed necessary to be made will be communicated orally to the students by announcement and e-mails.  Therefore, it is a requirement that students attend class on time or make themselves responsible for informing themselves of any changes made by the instructor during by logging into blackboard regularly and reading their e-mail.

**Last revised:  November 15, 2010**, Copyright © 2010, Louisiana Tech University, Department of Chemistry. All rights reserved.