

LAKE TAHOE COMMUNITY COLLEGE

CHM 201 – *Fundamentals of Organic Chemistry I*

LECTURE: Tu & Th 8:00-9:50am B-103
LABORATORY: Th 12:00-3:05pm D-103
CHEMISTRY @ LTCC PAGE: www.ltconline.net/wallace/

Fall 2009
revised 09/01/2009

I. INSTRUCTOR: Martin Wallace (*M.S., Chemistry Education*): "Martin", "Marty", "Mr. Wallace"...
CONTACT: (530) 541-4660, ext 284; Wallace@LTCC.edu; office: D-105

NOTE if you are calling from a cell phone, do NOT bother leaving a message on my voice mail. Most of the messages I get from cell phones are unintelligible. The best way to reach me is by e-mail, live telephone conversation, or dropping in during my office hours.

OFFICE HOURS: M & W 9:30-11am; Tu & Th 10-11am; and by appointment

II. PREREQUISITES: CHM 101 + 102 + 103 or equivalent

III. REQUIRED MATERIALS:

TEXT: *Introduction to Organic Chemistry, 3rd ed.*, Brown & Poon; ISBN 0-471-44451-0

LAB MANUAL: *The Organic Chem Lab Survival Manual, 7th ed.*, Zubrick;
ISBN 978-0-470-12932-6

SAFETY GOGGLES: must have (1) indirect venting, and (2) ANSI Z87.1 impact protection
The Uvex "Stealth" (Uvex #S-3960) meets these requirements, is reasonably comfortable and durable, and costs about \$15. *You must have your goggles at the start of your lab meeting during week 2; otherwise you will be turned away from the lab for that day.*

CALCULATOR: ***Programmable calculators cannot be used during quizzes or exams.***
You will need a simple scientific calculator. Basic models can be purchased at office supply stores for about \$10-\$15. See me if you have any questions.

You must have your lab manual, goggles, and acceptable calculator by the second week of class.

HIGHLY RECOMMENDED MATERIALS:

SOLUTIONS MANUAL: *Introduction to Organic Chemistry, Student Solutions Manual, 3rd Edition*;
ISBN 978-0-471-68263-9

MOLECULAR MODEL KIT: Molymod Molecular Model kit, for example; about \$30-\$40

IV. STUDENT LEARNING OUTCOMES:

1. Identify functional groups for all major types of organic molecules.
2. Predict molecular geometry, bond angles and bond polarity in for simple alkane, alkene, alkyne, haloalkane, aromatic compounds, alcohols and ether molecules.
3. Identify relative acid or base strength of organic molecules from quantitative data and/or molecular structure.
4. Compare and rank physical properties between and within the following categories of organic compounds: alkanes, alkenes, alkynes, haloalkanes, substituted aromatic compounds, alcohols, and ethers.

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IV. STUDENT LEARNING OUTCOMES (*continued*):

5. Name and draw structural formulas for simple alkanes, alkenes, alkynes, haloalkanes, substituted aromatic compounds, alcohols, and ethers; predict chirality of structures.
6. Predict products of major reactions of alkanes, alkenes, alkynes, haloalkanes, substituted aromatic compounds, alcohols, and ethers.
7. Describe and/or use mechanisms to explain products for the following reactions: electrophilic addition, oxidation-reduction of alkenes, nucleophilic aliphatic substitution, beta-elimination, and electrophilic aromatic substitution.

V. ACCOMODATIONS FOR STUDENTS WITH DISABILITIES:

Lake Tahoe Community College and I are committed to accommodating students with disabilities. The Disability Resource Center (DRC, room A-205, ext. 249) facilitates accommodations for learning, psychological, hearing, visual and communication disabilities as well as health disorders and mobility limitations. Students requesting any special services should contact the DRC.

VI. SCHEDULE

Lecture Topics, Quizzes, & Exams

A (constantly updated) class schedule that includes lab experiment, lecture topic, quiz and exam dates can be found by following the [CHM201](#) link from the LTCC Chemistry Home page:

<http://www.ltcconline.net/wallace/>

Tentative Exam Dates:

Exam #1 (ch. 1-5) Thursday, Oct. 29
Exam #2 (ch. 6-8) Tuesday, Nov. 24
Final Exam (ch. 1-9) Thursday, December 10 @ 8:00-9:50am

This exam schedule is likely to be revised to best meet the goals and objectives of this course as determined by your instructor.

Notes regarding missed exams:

Makeup exams will only be given for "serious and compelling reasons"; see me immediately if you miss an exam. **If you request to postpone an exam on the day the exam is scheduled, the request will most likely be denied.** Serious and compelling reasons for making up an exam include situations like illness or hospitalization, family emergencies, serious accidents, etc. Your makeup exam score will be no higher than the average of your other exam scores.

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Laboratory

We will typically complete one laboratory experiment or activity every week or two. The lab instructions are posted on the class Web page. You are responsible for downloading / printing a copy of the lab instructions and bringing this to lab.

Other Important Dates:

Last day to drop classes and receive a refund Friday, Oct. 2
Last day to drop with no record Friday, Oct. 16
Last day to drop with a "W" grade Friday, Nov. 6

Other VERY Important Dates:

Veteran's Day Holiday, campus closed Monday, Nov. 9
Thanksgiving Holiday, campus closed Thursday – Sunday, Nov. 26-29

VII. GRADING

Approximate Overall Point Breakdown

Exams (2 @ ~100 points each) ~200
Final Exam (2 questions from each chapter, multiple-choice) ~100
Quizzes* (~6 @ 20 points each; lowest score dropped) ~100
Laboratory* (~3 @ 10 points each and ~3 @ 20 points each) ~90

TOTAL (APPROXIMATELY) 500

*The total number of quizzes and/or experiments may vary by about ± 1 .

Overall Grading Scale; from the total points possible this quarter:

A (90.0–100%), B (80.0–89.9%), C (70.0–79.9%), D (60.0–69.9%), F (<60.0%)

Quizzes

Each quiz will be worth 20 points. Your lowest quiz score for the quarter will be "dropped".

"Homework"

"Homework" problems will not be collected or graded. However, I will suggest appropriate, in-chapter study problems from your text. Suggested study problems can be found by following the CHM 201 link from the LTCC Chemistry Home page:

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Laboratory Reports

Your instructor reserves the right to revise the lab approach to best meet the goals and objectives of this class. If the lab methodology is changed, the appropriate sections of this syllabus will be revised.

In general, 10% of the total lab points will be deducted from your lab report for each incorrect answer.

Each lab report is worth 10 or 20 points (max.) and will be graded on the following basis:

A 100% Lab Report will have the following attributes:

1. extra effort and high-level thought are evident throughout
 2. proper significant figures are used throughout
 3. proper units are used throughout
 4. calculations are shown
 5. calculated results are correct
 6. answers are correct (or at least reasonable); "unknowns" are correctly identified (20%)
 7. unreasonable results are noted and an explanation is attempted
 8. conclusions logically follow from experimental results
 9. lab procedures have been followed exactly
 10. written answers are detailed and thorough; complete sentences are used; work is legible
 11. student name, course number, section number, date, etc. is included on each page
 12. report is turned in on either original lab manual pages (cut or torn neatly from the book) OR photocopied pages from the manual
 13. only the pages that are clearly meant to be included are included with the final report; introductory text is NOT included with the final report
- A complete lab report, no matter how many errors, will be assigned a minimum of 60% of the points assigned to that lab.
 - **Zero points** will be assigned to laboratory reports that are substantially incomplete.
 - ***Students who arrive late to their scheduled lab meeting will have the following points deducted from that week's lab report: 1st offense = -0 points, 2nd offense = -1 point, 3rd offense = -2 points...***

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VIII. POLICIES, DEFINITIONS, & ADDITIONAL DETAILS

Tips for success in this class

1. Form small study groups and work together to master this material.
2. Participate in the lectures and ask questions.
3. Work on this class a little bit every day. Spend at least 1 hour per day doing some combination of the following: reading the text, reviewing your notes, working study problems, studying with classmates, and/or meeting with your instructor.
4. Stay ahead of the lecture with your reading, or at least read the book concurrently with the lecture topics.
5. Read the text and work example problems before attempting assigned homework problems.
6. Complete and turn in every item that has a point value: lab reports, quizzes, exams, etc.
7. Be honest with others and yourself. If you really hate this kind of work, don't complain or cheat, but instead find something that you do like to do. Life is too short to be miserable.

"Homework"

All in-chapter, and odd end-of-chapter, problems have answers provided in back of your textbook. Answers to other problems may be obtained by consulting with me or the study guide associated with your text. I will place a copy of the complete solutions guide for your text on reserve in the library.

Quizzes

Chemistry is most successfully tackled in small, regular bites through continuous studying; for most students, "cramming" immediately before an exam is not effective. Therefore, each week you will usually be given a brief quiz. Quizzes will usually be administered at the end of your Thursday lecture meeting each week; that is, you'll have a quiz each Thursday at about 9:15am. The quiz topics will roughly be the items covered in the 2-3 previous lectures; weekly quiz topics will be explicitly indicated on the online schedule for this class. ***You may not use programmable calculators during exams or quizzes.***

Exams

Exams will be administered during the regular lecture meeting during the week scheduled. You will be given 1hr 50mins (the full class meeting time) to complete each exam. Exams will be closed-notes, closed-text, but I will provide you with a periodic table, constants, and some formulas. ***You may not use programmable calculators during exams or quizzes.***

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VIII. POLICIES, DEFINITIONS, & ADDITIONAL DETAILS (*continued*)

Laboratory

Your instructor reserves the right to revise the lab approach to best meet the goals and objectives of this class. If the lab methodology is changed, the appropriate sections of this syllabus will be revised.

We will review safety, policies & procedures during our first lab meeting, but some of the basics are:

1. ***Whenever ANYONE in lab is working with chemicals, glassware, or equipment of any kind, you are required to wear safety goggles; no other type of eye protection is acceptable.***
2. The first few minutes of each lab meeting will often be dedicated to a discussion of safety considerations. ***Students who arrive late – even a few minutes – may be sent away from the lab. Students who habitually arrive late to lab may fail the class.***
3. Laboratory reports due dates are specified on the class Web page; *no late work can be accepted.*
4. You may be encouraged to work with a partner, but each student will turn in their own individual laboratory report.
5. You must pass the laboratory to pass the class overall. Missing 3 or more laboratory meetings will be grounds for failing the class overall unless special arrangements have been made for highly unusual situations. See me immediately if you are going to miss 3 lab meetings.

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Academic Dishonesty ("Cheating")

I take cheating very seriously, and I will pursue the strictest penalties for clear-cut cases of cheating. However, I will assume that you are innocent until proven guilty.

1. Cheating will be defined as, but not limited to (1) using any method to copy another's work on an exam or quiz; (2) directly copying another student's homework assignment or laboratory report; (3) using any method other than your own honest efforts to complete and earn grades for exams, quizzes, outside-of-class assignments or laboratory reports.
2. The following activities are NOT cheating: (1) collaborating with other students to complete laboratory reports or "homework" assignments; (2) working with other students to study for exams or quizzes.

Disciplinary actions for cheating will be per the "Student Rights and Responsibilities" section of the current LTCC catalog and are outlined below:

OBVIOUS CHEATING:

1. The first incident of **obvious cheating** will result in recommendation (to the Vice President, Academic Affairs and Student Services) of disciplinary suspension from the class for the remainder of the term. The student will be assigned a grade of "F" for that quarter.

BEHAVIOR OR EVIDENCE OF POSSIBLE CHEATING:

1. The first incident that appears to be cheating will result in a written **warning**; a copy of this warning will be sent to the dean.
2. A second suspicious incident will result in recommendation (to the Vice President, Academic Affairs and Student Services) of **disciplinary suspension from the class** for the remainder of the term. The student will be assigned a grade of "F" for that quarter.

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Relatively Frequently Asked Questions (*only* by students at LTCC):

I taught at Butte Community College, CSU Chico, and at the high school level for about 10 years before coming to LTCC in 2005. Here are some questions (and associated answers) that I have only heard from LTCC students:

Q: Can I make-up a lab experiment?

A: *No.* (Well, sometimes this is possible in Organic Chemistry. See me.)

Q: Can I make-up a quiz?

A: *No.*

Q: Can I take a quiz or exam early (or late)?

A: *No.*

Q: Can I take the final exam at a different time?

A: *No.*

Q: Is there extra credit available in this class?

A: *No.*

Q: I'm the hardest working student in the class; don't I deserve an "A"?

A: *While your efforts are admirable and will serve you well beyond General Chemistry, no.*

Q: Will you show us an example of every possible type of question that could be on an exam?

A: *No.* (It's impossible.)

Q: Is this going to be a fun class?

A: *No. However, mastering chemistry (or any subject, for that matter) is extremely satisfying.*

Over the past 12 years or so, I have received the following question from all – not just LTCC – students:

Q: I have or had a family emergency / major car accident / serious illness / extraordinarily important extracurricular event / etc. that is going to impact my academic performance; may I have special arrangements?

A: Of course. Please come see me as soon as possible if you find yourself in any of these situations. (Note that while a vacation or marriage proposal is an important extracurricular event, neither is a serious or compelling reason for special arrangements.)

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Names of Classmates

Tuesday, Sep. 22:

(front of classroom)

	<i>(You)</i>	

Thursday, Sep. 24:

(front of classroom)

	<i>(You)</i>	

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Student Information Sheet

Please complete this form and turn it in during the first week of class.

1. Name: _____

2. I prefer to be called: _____

3. Hometown: _____

4. Academic and/or Career Interests: _____

5. Previous Chemistry Courses (*please tell me about your preparation for this class; briefly describe your previous chemistry courses including when, where, what, grades earned, etc.*)

6. Hobbies, Outside Interests: _____

7. Anything else I should know about you? _____

