SYLLABUS
Fall 2009

Chemistry 231 – Organic Chemistry I (CRN 76549)
San Diego Miramar College
10440 Black Mountain Rd.
San Diego, CA  92126-2910

Professor:  Dr. Carl Hoeger

Office Phone:  (858) 534-6434 (UCSD)

e-mail:  choeger@sdccd.edu or chemcook@gmail.com

Web Page:  http://faculty.sdmiramar.edu/choeger (you MUST be able to access this page!)

Office Hours:  Immediately before and after class; You can also get me some of the time on AOL
Instant Messenger (or iChat): my screen name is profcah.  Other times as mutually
arranged.

Class Meets:  Monday 5-8:10 p.m., Rm. S5-107 NOTE: SOME LECTURE MATERIAL WILL
OCUR DURING LAB TIME; YOU MUST ATTEND IF YOU ARE IN THE
LECTURE!

Materials:  Wade:  Organic Chemistry 7th ed (reqd)
A scientific calculator is highly recommended.
A model kit will be helpful.  One can be obtained thru the Science Club (see
professor)

Prerequisites:  Chemistry 201/201L (second semester General Chemistry), or equivalent, each with a
grade of "C" or better (B or better recommended). NO EXCEPTIONS.

Corequisite:  Completion and/or concurrent enrollment in Chemistry 231L (highly recommended
that you take Chemistry231L at Miramar). Exceptions to this may be made at
instructor discretion WITH appropriate documentation.

Advisory:  ENG 101 or ENG 105, each with a grade of “C” or better, or equivalent OR
Assessment Skill Level W6 and R6.

Transfer Info:  Associate Degree Credit & transfer to CSU and/or private college/univ.; IGETC; UC
Transfer Course list; Chemistry (CHEM) 130, 130L, 231, 231L combined; Maximum
credit, one course (with lab).

Description:  This course is the first semester of a one-year course in Organic Chemistry. Major
themes include, but are not limited to, bonding and molecular structure,
nomenclature, reaction mechanisms, synthesis, and an introduction to conjugated and
aromatic carbon based compounds. An emphasis is placed on the reactions of
aliphatic compounds such as alkanes, cycloalkanes, alkenes, alkynes, and alkyl
halides. The organic chemistry literature, and spectral interpretation using techniques such as infrared and nuclear magnetic spectroscopies, are introduced to support the above topics. This course is designed for undergraduates pursuing a degree in the chemical sciences, training in chemical technology, and other transfer students who need organic chemistry as part of the formal preparation for their major; for example, molecular biology, pre-medical, pre-dental, and pre-pharmacy.

**Goals:**

Primary: To prepare students for chemistry 232 and 233L; Secondary: strengthen study and work habits, as well as critical/analytical thinking skills necessary for future success at the University level.

**SLO's:**

Student Learning Outcomes: Upon successful completion of the course (defined herein as a grade of “C” or better), the student will be able to:

1. Differentiate between functional groups, identify functional groups present in molecules, and assign these to the corresponding classes of organic compounds.
2. Apply International Union of Pure and Applied Chemistry (IUPAC) conventions to name simple organic compounds.
3. Compare and contrast current theories of acids and bases, relate molecular structure to acidity and basicity, and illustrate acid-base reactions of organic compounds.
4. Explain isomerism and recognize, draw and name molecular structures that exhibit optical activity.
5. Illustrate and analyze mechanisms of organic reactions (including selected heterolytic and homolytic substitutions, additions and eliminations, and oxidations and reductions) using thermodynamic, kinetic and stereochemical principles.
6. Propose and evaluate strategies for the synthesis of selected classes of organic compounds, including, but not limited to, alkanes, alkenes, alkynes, alkyl halides and alcohols.

**Attendance:**

Prompt and punctual attendance is required at all meetings as mandated by the state of California. Students with **TWO** unexcused absences will be **dropped from my roster** and will not be reinstated (please note that it is the students responsibility, NOT THE INSTRUCTORS, to be sure that they have OFFICIALLY been dropped). An **unexcused absence** is defined as: a) Missing an entire class period without the permission or prior knowledge of your instructor; b) Arriving to class after attendance has been taken (which is considered LATE), without the excuse of your instructor; c) Leaving class early without the permission of your instructor. **It is each student's responsibility to sign the attendance roster.** Your name must appear on the roster or you will be marked absent for that class period (unless you have prior permission from your instructor). Your attendance **will** impact your final performance evaluation/course grade.
CHEMISTRY 231

PERFORMANCE REVIEW POLICIES (GRADING & EVALUATION)

You will be evaluated based on the following:

1. Exams: TWO 90 minute exams worth 100 points each, TWO 30-minute mini-exams worth 50 points each, plus a “cloned final” for an “Exam 3”\(^a\). These MAY be a combination of multiple choice, short answer, essay and problem solving questions. The exams **may** be take home, in class, or a combination thereof. All exams are given on Mondays and may run into the laboratory prep period at the end of the lecture time. Make-ups will not be given (Total: 400 pts., of which 300 will count\(^b\))

2. Lecture Quizzes: These will be given, starting in Week 3, at the beginning of class and will take 10 minutes and be worth 10 points. Lowest will be dropped. (7-10 total; Total Pts: 60-90 pts.)

3. In-Class Activities (ICA’s): In-class activities (which are **usually** started in class and finished at home) are worth 10 points each and **cannot** be made up without the instructor’s permission. The number of these varies from year to year but it is expected there will be 3 to 6 of them (Total: ca. 30-60 pts.)

4. Homework: To be discussed on first day. (EXPECTED Total: 50 pts)

5. Final Exam**: Comprehensive. This exam will be given in class and lab. (See schedule for date.) (Total: 200 pts.)

\(^a\) Your final exam will be ‘cloned’ to be an “Exam 3” (cloned means: \([\text{Your score} / 200] \times 100\)).

\(^b\) I will drop the LOWEST of your Exam 1, Exam 2, “Exam 3”, or Mini-exam total. The final itself WILL count no matter what but its ‘clone’ may not

**Grading Scale:** (Approximate Percentage of Total Points Possible)

- A = 85% and up
- B = 75-84%
- C = 60-75%
- D = 50-60%
- F = less than 50%

The grade that you receive will reflect a percentage of your cumulative point total for the semester. Although these grade cut-offs will not be raised, they MAY be lowered depending on class performance. Plus and minus grades will not be awarded. It is recommended that you keep track of your point total and percentage throughout the semester. You may ask your instructor for a progress report at **any time** during the semester. A FULL EXPLANATION OF THE GRADING PROCEDURES IN THIS COURSE WILL BE EXPLAINED ON THE FIRST DAY AND YOU ARE RESPONSIBLE FOR EVERYTHING SAID THAT DAY.
OTHER IMPORTANT CHEM 231 POLICIES, PROCEDURES AND INFORMATION

1. **Plagiarism and cheating will not be tolerated.** If you engage in either of these activities on any assignment, then you WILL receive no credit for that assignment, exam or quiz; in addition you may be dismissed from the course. You WILL also be referred to the Dean of Students for disciplinary action. For further information, please read the Miramar College catalog under the section on student responsibilities - code of conduct. See attached document.

2. You are expected to be prepared for each class meeting. This includes completing any assigned practice problems or activities and doing the assigned reading. It is expected that you have read the entire chapter prior to lecture, as I will concentrate in lecture on the most important and/or conceptually challenging material in the chapter. You are responsible for all material in the book and in lecture unless told otherwise by myself.

3. Group Work: The format of class sessions will be a combination of lecture, discussion and group activities. You are expected to fully participate in all group activities. Failure to do so will result in a zero for that activity.

4. Lecture is accomplished using a combination of slides and board work. All slides for this course can be found in PDF format on the course web page (see first page of this syllabus). Homework problems can be found on the last slide for each chapter’s lecture.

5. As part of in-class assignments and/or exams, often you MAY be expected to write essay answers to certain questions. If you do not feel prepared for this type of assignment, please see your instructor or go to the PLACe for tutorial assistance.

6. Some assignments will require you to use a computer for word processing and/or Internet access. You will also be strongly encouraged to use e-mail. If you need assistance with computer skills, please see your instructor no later than the second class meeting. Your instructor can give you personal assistance in creating an e-mail account or in gaining Internet access.

7. Out of courtesy and respect to your fellow students and the instructor, please turn off (or place in silent mode) all pagers, mobile phones, and other electronic devices. Do not bring personal stereos to the laboratory. You may NEVER use your phone or PDA or personal computer during an exam without the instructor’s permission.

8. Miramar provides special services that are available to its students. These include: **Tutoring:** Free peer-to-peer tutoring will be available at the PLACe, D–106. **Disabled Student Services:** If you have a learning or physical disability which requires special accommodations for classroom participation and/or examinations, please notify your instructor and the DSPS office on campus (C–304, 619-388-7852); **ILC (Instructional Learning Center):** Located in I-130, a state-of-the-art computerized learning center with Internet access where you can use Microsoft Office and a variety of other current software.

9. You are expected to take all exams, quizzes, and turn in on time all class work required of you. No make up or extra credit work is or will be given.
10. The last day to add this class with an add code is 9/4/09. The last day to drop with no "W" on record is 9/4/09. Final Drop date is Oct. 30 2009. This is the last day to withdraw with a "W". [PLEASE NOTE! If you stop attending, but you remain on the official roster after the Final Drop date, your instructor WILL assign you a grade of F. Therefore, if you want to be certain that you have been dropped from the course, it is your responsibility to drop the class through the admissions office prior to the final drop date. After the final drop date has passed a "W" will NOT be assigned.

11. Occasionally conflicts arise between a student and instructor; these almost always arise out of a lack of clear communication. For my part, I will make as clear as I can to you what I expect and how I expect this to be accomplished. If you feel for some reason that you are being or have been treated unfairly, or you feel that some aspect of your performance in the course was unclear, there is a designated path available to you at Miramar for conflict resolution. This path starts with me! If you have any concerns, PLEASE see me ASAP (this will be private and confidential) and let me see if we can work it out. If this fails, or you would rather not talk to me, you are welcome to discuss your concerns with the department chair (Dr. Linda Woods). The department chair can then lay out for you the path by which conflict resolutions can be escalated (Dean to Vice President to President). Please, come to see me first; I don’t bite!

Your enrollment in Chemistry 231 requires you to follow these policies. If you do not intend to follow the policies outlined in this syllabus, please drop the course and allow someone else to fill your slot.

Your professor is committed to providing a safe and tolerant classroom environment and will do everything within his ability and authority to assure that you can succeed in this class. Your responsibility is to maintain an acceptable attendance record and perform your assignments at the minimum performance standards (grade of C), or above. Please feel free to talk to your instructor at any time regarding this course or any concerns you may have about it or your ultimate career goals.

It is a pleasure to have you enrolled in Chemistry 231!
HONEST ACADEMIC CONDUCT

Honesty and integrity are integral components of the academic process. Students are expected to be honest and ethical at all times in their pursuit of academic goals.

1.0 DEFINITIONS:

1. **Cheating**: The act of obtaining or attempting to obtain credit for academic work by the use of any dishonest, deceptive, or fraudulent means. Examples of cheating include, but are not limited to:
   1. Copying, in part or in whole, from another’s test or other examination;
   2. Discussing answers or ideas relating to the answers on a test or other examination without the permission of the instructor;
   3. Obtaining copies of a test, an examination, or other course material without the permission of the instructor;
   4. Using notes, "cheat sheet" or other devices considered inappropriate under the prescribed testing condition;
   5. Collaborating with another or others in work to be presented without the permission of the instructor;
   6. Falsifying records, laboratory work, or other course data;
   7. Submitting work previously presented in another course, if contrary to the rules of the course;
   8. Altering or interfering with grading procedures;
   9. Plagiarizing, as defined herein;
   10. Knowingly and intentionally assisting another student in any of the above.

2. **Plagiarism**: The act of incorporating ideas, words, or specific substance of another, whether purchased, borrowed, or otherwise obtained, and submitting the same as one’s own work to fulfill academic requirements without giving credit to the appropriate source. Examples of plagiarism include but are not limited to the following:
   1. Submitting work, either in part or in whole, completed by another;
   2. Omitting footnotes for ideas, statements, facts or conclusions which belong to another;
   3. Omitting quotation marks when quoting directly from another, whether it be a paragraph, sentence, or part thereof;
   4. Close and lengthy paraphrasing of the writing or work of another, with or without acknowledgment;
   5. Submitting artistic works, such as musical compositions, photographs, paintings, drawings, and sculpting, of another;
   6. And submitting papers purchased from research companies (or downloaded from electronic source) as one’s own work.
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<td>Course Introduction</td>
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**Please make the following notes:**

- All Sessions marked by * will/may have a Quiz at the beginning of the session;
- Exams start promptly at 5 and will last 1.5 hours;
- Exams will cover all material up to the exam date, *including lecture material discussed in lab*!
- There will always be a lecture following an exam;
- Schedule is approximate; changes may occur
- The final exam is December 9th and will be in Room S5-202 from 5 to 8 PM