Chemistry 225 Lab Syllabus

Fall 2011

COURSE INFORMATION

Instructor:	John Congleton
Course Schedule:	***CRN: 23958*** Monday and Wednesday, 12:50 PM to 4:00 PM
	CRN: 23957 Tuesday and Thursday. 7:50 AM to 11:00 AM
Office Hours:	MW 10:15-10:50 chem. 233
	TH 7:20-7:50, chem. 115
	F 1:30-3:30 electronic
Office Location:	Chemistry Building, Room 233
E-mail Address:	jcongleton@occ.cccd.edu
Course Web Site	http://faculty.orangecoastcollege.edu/jconglet/

STUDENT LEARNING OUTCOMES:

The student will be able to:

1. Explain the theoretical basis and applications of common techniques in organic chemistry including melting points, recrystallization, distillation, extraction, chromatography, and infrared spectroscopy.
2. Execute simple organic chemistry experiments using the common techniques of organic chemistry including melting points, recrystallization, distillation, extraction, chromatography, refractometry, and infrared spectroscopy.
3. Write the observations and results of organic chemistry experiments in a notebook journal using proper techniques for recording scientific experiments.
4. Identify the structures of unknown substances using infrared spectroscopy and nuclear magnetic resonance spectroscopy.
5. Apply safe and proper laboratory techniques while making accurate, reproducible measurements of masses and volumes, and reproducible experimental observations.

REQUIRED MATERIALS

Lab Text: *Introduction to Organic Laboratory Techniques (A Microscale Approach)* by Pavia, Lapman, and Kris & Engel, 3rd or 4th ed.

Record Book: All data and observations are to be recorded in a *bound* laboratory notebook which has *quadrille-ruled and bound pages* (National 43-475 for example). Remember, no Record book = No work that day in Lab = No points that day in lab.

3-Ring Binder This is to hold all handouts (such as this one), graded lab reports, etc...

Eye Protection: APPROVED SAFETY GLASSES ARE REQUIRED & MUST BE WORN AT ALL TIMES IN THE LABORATORY! Safety glasses must meet Z-87 specifications.

Course Policies

Safety in the lab is of paramount importance.

1. **General Safety:** Safety should not be the concern only of the instructor; it must be the concern of *everyone*. As a student you are entitled to a safe environment and you are entitled to know at all times the lab activities of others in the class.
2. **Safety glasses must be worn in the laboratory whenever anyone is doing experiments.** Serious violations of the safety rules could result in lowered grades or expulsion from the course.
3. **Hazards:** Students are required to check the hazards of all reagents or products before starting the experiment. Appropriate precautions should be taken to avoid exposure to potentially harmful chemicals. Any spills should be cleaned up immediately before proceeding with the experiment. Any exposures to chemicals should be reported to the instructor immediately.

4. **Waste Disposal:** All chemicals must be disposed in the proper waste receptacles. No chemicals should be disposed in the drains of the sink unless specifically indicated by the instructor. Students should clean their lab area, including the lab bench and balances, before leaving the lab each day.

5. **Preparation:** Students are required to read and understand all instructions pertaining to each lab before starting any experiments and complete the pre-lab portion prior to each experiment. Students should never perform any procedure that they do not completely understand. Students must not perform any unauthorized experiments.

6. **Late Assignments:** Lab reports will be collected at the beginning of the lab period on announced dates. Lab reports that are not submitted at the beginning of the lab on the due date are considered late. *Late reports will be docked 20% for lab reports one period late, 50% for a week late, and not considered for credit after one week late.*

7. **Violation of Academic Honesty**: The penalties for violations of academic honesty are severe. Please see below for more detail concerning academic honesty.

8. **Attendance**: Students are expected to attend all lab sessions. Students should arrive on time and prepared. Students should plan their time appropriately to finish on time each day. Absences and excessive tardiness will result in points being deducted from the students' lab score.

METHOD OF GRADING

Course grades will be assigned according to the percentage of total points. Those who are consistent, conscientious and careful (and do well on quizzes and the final exam) find lab to be a rewarding and painless experience. The grading scale will be 90-100% A, 80-90% B, 70-80% C, 60-70% D, and below 60% F.

Item	%
1. Worksheets	2.0
2. Final Exam	35.0
3. Lab notebook evaluations, inspections, and evaluation of experimental results.	55.0
4. 3-ring binder (completeness and organization).	3.0
5. Miscellaneous: • On time attendance. Roll is taken daily and your timely attendance will count towards your final grade. • Pre-lab assignments. • Safety	5.0
NOTE: All lab record books must be turned in to instructor at end of semester. Failure to do so may result in a failing grade.	
Total Points:	100%

Academic Dishonesty.

1. Academic Dishonesty is unacceptable and will not be tolerated. In certain cases it may result in the student receiving an "F" in the course. If student has already taken the course and is violating academic honesty code listed below, he/she may be subject to a grade change to an "F" for the course.

2. Academic dishonesty includes, but is not limited to:

   - Starting an experiment without completing your prelab assignment.
   - Giving assistance or information to another student during an exam.
   - Receiving assistance or information from another student during an exam.
   - Use of notes, books, or other aids during an exam.
   - **Copying exams, lab notebooks, or other assignments from another student.**
   - Providing exams, quizzes, lab notebooks, or other assignments TO other students at any time during the semester OR at any time after the semester.
   - Falsifying laboratory data, procedures, or results.
   - Stealing exams, lab notebooks, notes or assignments from another student or the instructor
   - Using another person's work on exams, lab notebooks, or assignments.
   - Disrupting or sabotaging the work of another student.
   - Plagiarism: This is considered cheating.

3. Plagiarism is defined as "to steal and pass off (the **ideas** or **words** of another) as one's own : use (a created production) **without** crediting the source: to commit literary theft: present as new and original an idea or product derived from an existing source."

   FROM: *Webster's New Collegiate Dictionary 9th ed*, (Springfield, Ma: Merriam 1981, p. 870).

Plagiarism is considered a violation of academic honesty. Lab reports that contain any part that has been plagiarized will receive (at least) a failing report grade for the first incident. Subsequent instances of plagiarism may result in a failing grade for the class and a referral to the Dean of Students.

   - Students most often have issues of plagiarism in their Introduction and Conclusions.

4. Any student found perpetrating academic dishonesty on an exam or assignment (lab write-ups included also) will receive 0 points for that exam or assignment. Depending on the severity of the incident, the instructor may pursue additional measures, including expulsion from the course and/or awarding an "F" for the student's final grade in the course.

5. See the Orange Coast College Honesty Policy. These outline my responsibilities and yours too.

http://www.orangecoastcollege.edu/about_occ/Staff+Development/faculty_staff_handbook/academic_practices/Academic+Honesty+Policy.htm

A Few Important Reminders…*Points will be deducted from the student's total lab score for the following violations of safe and sound laboratory practices.*

You must at all times…

- Come to lab meetings on time (this can lead up to a loss of 8% of your final course grade)
- Keep a written as-you-go lab record
- Use laboratory equipment with great care.
- Never use flammable solvents near open flames
- Properly monitor experiments
- Improper waste and solvent disposal (loss of 30 points on lab report first time, and loss of 200 points for subsequent violations)
- Wear safety glasses at all times. (loss of 30 points on lab report)
- Complete ALL pre-lab assignments before starting lab work *(Record book is initialed)* (loss of 30 points on lab report first time, and loss of 200 points for subsequent violations)