Experimental Organic Chemistry IA Syllabus
Fall 2011 CHEM 220L

Tuesday 3:00 pm – 5:50 pm (CHEM-220L-M051)
Monday 2:00 pm – 4:50 pm (CHEM-220L-M052)
Room 116

Instructor:  Tsvetanka Filipova
             Office hours:  Tue 11:00am -12:00pm, Wed 3:00-4:00pm, Thu 1:00-2:00pm or by appt.
             Office: OG205, 394-1698
             email: Tsvetanka.Filipova@sdsmt.edu

TA:  Stephany Bjustron (CHEM-220L-M052)
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      Matthew Pepin (CHEM-220L-M051)
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Prerequisites: CHEM 114L

Catalog Description:  (1 credit)

A one semester laboratory course. Experiments demonstrating techniques for the separation, characterization and synthesis of organic compounds are performed. Functional groups are derivatized.

Required Supplies and Text

- Composition laboratory notebooks with gridlines are available from the SDSM&T bookstore.
- Approved safety goggles (see Safety Guidelines in the Lab Manual).

Outcomes: The student who completes this laboratory will be able to:

- Identify chemical and physical hazards indigenous to the first-semester-sophomore-level organic laboratory which pertain to the safe handling of chemical reagents, glassware, and equipment;
- Discuss how the dangers of any particular laboratory operation can be minimized;
- Have fundamental knowledge of chemical safety in the organic laboratory;
- Identify fundamental bench-scale techniques necessary for the synthesis, separation, isolation, and purification of organic compounds;
- Maintain a laboratory notebook in correct format;
- Demonstrate a molecular, mechanistic understanding of each laboratory synthetic attempted;
- Begin to appreciate the challenges, significance, and satisfaction of organic laboratory work.
Laboratory Safety

Safety goggles are required for all laboratories. Contact lenses are prohibited in the laboratory. No student will be permitted to work in the laboratory outside of the scheduled time. Students may not come in on days other than their scheduled period.

Attendance/Missed Lab Policy

In the organic chemistry labs students must complete work for every laboratory experiment. Unexcused absences will result in a grade of zero for the lab missed. If the student must be absent from the laboratory due to a school sponsored event prior notification must be given at least one week in advance so that a make-up date can be arranged. If a student does not do this and the experiment is missed then no credit will be awarded for that lab.

In order for an absence to be excused, the student must:

1. Contact the Instructor, Tsvetanka Filipova (Tsvetanka.Filipova@sdsmt.edu) or the TA before the lab period starts.
2. Excused absences will only be granted for things outside of student control; e.g., medical emergencies.
3. Upon returning to lab, student must bring proper justification of the absence; e.g., a doctor's note.
4. If possible, excused absences must be made up by attending another lab section later during the same week; see the instructor to schedule a make-up period. In the event that a student has more than two unexcused absences, or excused absences that are not made-up, the student must either drop the course or obtain permission to take an incomplete.

Make-Ups

There are no make-up periods or experiments. Under no circumstances are students permitted to be in the laboratory other than during the scheduled hours.

Grading

1. Laboratory Notebooks (50%). Adhere strictly to the format provided for your notebooks. Guidelines can be found in Macroscale and Microscale Organic Experiments Sixth Ed., Brooks/Cole Cengage Learning, pp 18-25, 2011. Follow this format closely as there will be deductions for deviations and incomplete notebooks. Notebooks must be bound, with consecutively numbered pages. All data is to be recorded directly in the notebook. Data includes all observations, any scale reading, and a running notation on the course of an experiment and must be recorded at the time read in ink. Lab books will be kept in the lab at all times.
2. Laboratory Quizzes (50%) Approximately 10 to 15 minutes of pre-lab discussion meetings will be devoted to a quiz on the previous or next experiment. No make-up quizzes will be given.

The grading scale is as follows:
A = 90-100%        C = 70 – 79%
B = 80 – 89%       D = 60 – 69%        F = 0 – 59%

Attendance is required. Students must be on time and are expected to follow safety procedures and protocols including wearing goggles. Failure to do so will result in deduction of points from the laboratory notebook.
Fines for Failing to Check-in or Return Padlocks

Students who have checked out a lab locker and drawer key are required to check the locker and key in at the end of the semester or earlier if withdrawing from the course. A fine of $30.00 will be assessed for failure to check-in and a fine of $30.00 will be assessed for each padlock lost or damaged. If circumstances force a student to withdraw from a lab before the end of the semester, arrangements must be made with the storeroom manager to check student’s desk and padlock in order to avoid the fines.

Clean-Up

Before leaving the laboratory, work area must be clean (any spills must be cleaned up immediately). Turn off running water. Clean out material from the sinks (only water soluble liquids are to dispose of in the sinks at the instruction of the TA, solids and other waste will have a designated receptacle). If keeping product in the drawers, make certain it is sealed tightly to prevent loss by evaporation.

ADA Statement

Students with special needs or requiring special accommodations should contact the instructor, (Tsvetanka Filipova, at 605-394-1698 or Tsvetanka.Filipova@sdsmt.edu) and/or the campus ADA coordinator, Jolie McCoy, at 394-1924 at the earliest opportunity.

Freedom in learning

Under Board of Regents and University policy student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact the dean of the college which offers the class to initiate a review of the evaluation.

Electronic devices

No electronic devices are allowed in the laboratory.

Final Word

This syllabus outlines how it is planned to present this course. If circumstances warrant, changes may be made and students will be notified by a message to your official SDSM&T e-mail address.