**General Organic Chemistry Lab 12AL**

MW 11am – 1:50pm

TTH 8am – 10:50am

(FYI: many students find they need to stop by another lab for extra time to finish their experiments in organic! This is allowed, but please notify me.)

Instructor: Michelle Hagerman (Davidson)

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Class Website: [www.michelledavidsonchemistry.weebly.com](http://www.michelledavidsonchemistry.weebly.com)

**Office Hours:**

MW 10am – 11am Sci 216

TTH 7:30am -8am Sci 216 lab

TTH 12:20pm – 1:20pm Sci 334

**Description:** This course covers the utilization of the techniques of experimental organic chemistry including physical and chemical methods of purification, separation, and structure determination, with an emphasis on syntheses and mechanisms. Infrared spectroscopy is used extensively in this course. Field trips may be required.

**Prerequisites:** grades of C or better in 1A/1AL, 1B/1BL, and 12A or concurrent enrollment.

**SLOS Chem V12AL**

1. Synthesize simple organic molecules using modern reaction techniques.
2. Analyze the success of each synthesis on the basis of gravimetric, spectroscopic, and chromatographic evidence and physical properties.
3. Analyze unknown substances using qualitative chemical tests and to confirm the analysis using the interpretation of infrared spectroscopy, gas chromatography, and mass spectroscopy.

**Required Materials:**

You must have your lab printed for the day that you are performing the experiment. You may use a laptop or tablet for the instructions instead of printing… absolutely no cell phones.

**\*Your prelab and postlab must be printed; electronic copies not accepted.**

**Each student must have the following the day you start Experiment 1 – this will be your first quiz grade!**

**Goggles**

**Box of Disposable Gloves**

**Bottle of Liquid Soap**

**Tupperware for soaking organic glassware (1 quart minimum)**

Recommended: Lab coat

**Attendance:**

Attendance is mandatory. Students are required to complete full labs – if you miss one day of an experiment, you will not receive any credit for that lab. Students will be dropped for missing 4 classes. If you are absent, you can still turn in your previous lab when you return.

**Tardiness:**

Unacceptable. You are legally required to attend the lab lecture in order to perform the experiment. If you are late (more than 15min), you will NOT be allowed to perform the experiment.

No extensions are given for quizzes if you arrive late.

**Academic Integrity**:

Be careful! Receiving an unfair advantage is considered academic dishonesty (aka: cheating); I have a no tolerance policy – a zero will be given.

All organic labs are performed on an individual basis. This is an upper division course – a high level of self-sufficiency and productivity is required in addition to good safety habits and the respect of those around you. Many students seem to work together outside of the classroom when answering questions – but be careful…. If you are simply copying someone else’s work, then you are not learning and will find your quiz scores to be poor. Quizzes are the bulk of your grade!

**Grading:**

Prelabs + MSDS 15%

Postlabs 25%

Quizzes 45%

Final 15%

\*In addition, students will lose points (up to a full letter grade for the lab) for the following:

Dirty workspace

Breaking of expensive organic glassware.

Unsafe behavior

Prelabs: Due immediately at the start of class. NO LATE WORK ACCEPTED!

MSDS: An MSDS is required for each lab – you MUST READ the LAB INSTRUCTIONS and write up an MSDS for every chemical used! See attached example.

Postlabs: Due immediately at the start of class. NO LATE WORK ACCEPTED!

Quizzes: Given every two weeks. It is VERY IMPORTANT that you keep a lab notebook – we lecture up to an hour on important organic material in which you will be quizzed; those students that take good notes and study 8-10 hours per week, do well.

Final Exam: Cumulative and mandatory.

\*One prelab, postlab, and quiz will be dropped for whatever reason – absence, low score, etc.

THERE ARE NO MAKE-UPS OF ANY KIND.

A final note: lab can be a very intimidating setting for many students. Common courtesy, respect, and a high regard of safety is expected towards all people, equipment, and chemicals.

This lab requires a lot of time and research outside of the class when completing prelabs and postlabs – you will find yourself doing a lot of reading (internet, lecture text, etc).

SLOS – please see department website.

\*\*\* BE PROACTIVE – get help in advance! If you wait till the last minute, it’s too late!