

FALL SEMESTER 2020 – Syllabus Highlights
CHEM 2229: Organic Chemistry II Lab

INSTRUCTORS:

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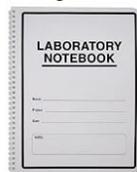
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OBJECTIVES:

Course objectives are to develop facility with performing laboratory techniques involving the handling of organic chemicals safely and the keeping of proper records of experiments conducted in the laboratory. The 2229 Laboratory is made up of two parts. Safe handling of chemicals and proper disposal of waste products are priority goals in this course. To help in attaining such goals, the first week of the semester is devoted to “Safety in the Chemistry Laboratory.” The remainder of the first half of the semester involves a series of weekly microscale single step syntheses experiments. Melting points, boiling points, and thin layer chromatography are used routinely as measures of purity. There will be an online comprehensive midterm exam. A review of FTIR and NMR for product characterization will be done in preparation for the second half. The second half of the semester involves a special project which entails a larger scale multistep synthesis and the introduction to chemical literature retrieval. Students will complete lab reports for each experiment. There will also be an online comprehensive final exam.

REQUIRED BOOKS:

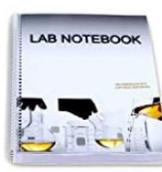
1. 100 page ***Carbonless Duplicate*** page Organic Chemistry Laboratory Notebook
 - a. Be sure to verify that the duplicate page notebook does not contain/require carbon paper before purchasing it.
 - b. The 100 page notebook provides enough paper for both Organic I and Organic II labs. If you only intend to take Organic I lab, a 50 page notebook will suffice.
 - c. This item may be purchased from the local book stores or Amazon.
Examples of acceptable lab notebooks are shown below.



BookFactory Carbonless Lab Notebook (Scientific Grid Format) - 8.5" x 11", 50 Sets of Pages, 100...



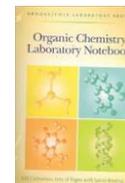
Roaring Spring Edison 4x4 Quad Graph Ruled Wirebound Spiral Lab Notebook with Carbon Paper, 11" x 9" 50...



Lab Notebook 100 Carbonless Pages Spiral... Barbakam



Student Lab Notebook: 100 Spiral Bound... Hayden-McNeill...



2. Nichols, Lisa. “Organic Chemistry Laboratory Techniques, 2nd ed.”

Available as free pdf. Download at:

<https://open.umn.edu/opentextbooks/BookDetail.aspx?bookId=369>

REQUIRED PERSONAL PROTECTIVE EQUIPMENT (PPE):

1. Goggles or Face shields. (Safety glasses are **NOT** acceptable.)
2. Nitrile Gloves. (Latex gloves are **NOT** acceptable.)
3. Face Masks.
4. Long pants or long skirt.
5. Closed toe shoes.
6. Lab apron or lab coat (*optional*).
7. Face Shields (*optional*).

UPDATED INFORMATION FOR CHEM 2229:

(Traditionally, the organic chemistry labs have met in person once a week for a 3 hour block. The first hour was spent in a classroom and consisted of a lecture and a quiz over the upcoming experiment. The following two hours were spent in the lab performing the experiment. Students were required to answer prelab questions prior to attending class, maintain a lab notebook and submit prelab assignments and lab reports at the beginning of lecture.)

For Fall 2020, in order to adhere to social distancing requirements and maximize students' learning environment, Chem 2229 is being offered as a **hybrid course**.

1. Section sizes have been decreased from 32 to 16. The original Thursday section has been divided into two back to back sessions and will be meeting at the following times. The Friday section will be meeting only during the earlier two hour block.

Thursday students will be reassigned to sections based on preference survey* and space availability.

| Original Times (32 students) | New Times (16 students) |
|---|---|
| Section 301 Thurs. 2:00 – 4:50 pm: (71610) | Section 301 (71610) Thurs. 2:00 – 3:50 pm |
| Section 303 Fri. 1:00 – 3:50 pm (72618) | Section 302 (73599) Thurs. 4:00– 5:50 pm |
| | Section 303 (72618) Fri. 1:00 – 2:50 pm |

**A Survey will be available on Canvas for students to indicate preference of section. Students who do not complete the survey will be presumed to have no preference and will be assigned to section based on space availability.*

2. **Lectures and prelab quizzes** will be provided **online** through Canvas modules approximately one week in advance of the experiment and will need to be completed before attending lab.
3. The **Prelab/MSDS Information portion of the lab report** will be due 3 days prior to the experiment and will be submitted **online** through Canvas.
4. All **experiments** will be completed **in person** during the assigned lab time in room **129 Schrenk Hall**.
5. **Lab reports** along with post lab calculations and questions will be due one week following the experiment and will be submitted **online** through Canvas.
6. **Comprehensive midterm and final exams** will be provided **online** through Canvas on dates to be specified in the full syllabus which will be provided at the beginning of the semester.

DISABILITY AND SUPPORT SERVICES:

If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with Drone and/or Dr. Bolon early in the semester. You will need to request that the Disability Services staff send a letter to them verifying your disability and specifying the accommodation you will need before they can arrange your accommodations.

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TITLE IX INFORMATIONS:

Missouri University of Science and Technology is committed to the safety and wellbeing of all members of its community. US Federal Law Title IX states that no member of the university community shall, on the basis of sex, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any education program or activity. Furthermore, in accordance with Title IX guidelines from the US Office of Civil Rights, Missouri S&T requires that all faculty and staff members report, to the Missouri S&T Title IX Coordinator, any notice of sexual harassment, abuse, and/or violence (including personal relational abuse, relational/domestic violence, and stalking) disclosed through communication including but not limited to direct conversation, email, social media, classroom papers and homework exercises.

Missouri S&T's Title IX Coordinator is Neil Outar, J. D.

To report Title IX violations, contact him directly (naoutar@mst.edu) (573) 341-6038; 203 Centennial Hall).

To learn more about Title IX resources and reporting options (confidential and nonconfidential) available to Missouri S&T students, staff, and faculty, please visit <http://titleix.mst.edu>