

CHEMISTRY 365 SYLLABUS**Spring 2023****Organic Chemistry Laboratory II**

Classroom: Langseth 307 Dr. Craig P. Jasperse web: http://www.mnstate.edu/jasperse/ Office: Hagen 407J Telephone: 477-2230 e-mail: jasperse@mnstate.edu	Office Hours: M-W-F 9-10:30; M-T-W-H-F 1-2:30 But much afternoon time is available, too
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Required Text and Materials:

Room: Langseth 307 (lab)

1) Safety Goggles

2) Lab Manual (print from website, see <http://web.mnstate.edu/jasperse/Chem365/Chem365.html>)

*note: Avoid printing this from university computers/printers using Firefox.

Lab Location: Langseth 307	Thursday, 9:00-11:50
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<u>Date</u>		<u>Page</u>
Jan 12	Cyalume: Chemiluminescence	5
Jan 19	Grignard Reaction, Part 1	11
Jan 26	Grignard Reaction, Part 2	11
Feb 2	Alcohol to Ester; Catalysis; Distillation; NMR	23
Feb 9	Alcohol Unknown (NMR)/Synthesis of Aspirin	29
Feb 16	Makeup Lab. • for making up previously-cancelled lab days or labs that individual students missed	
Feb 23	Ketone Reduction by Sodium Borohydride	35
Mar 2	Aldehydes and Ketones Unknown/Derivative	41
Mar 9	Dibenzalacetone by Aldol Condensation	49
Mar 16	No Lab. Spring Break.	
Mar 23	Wittig Reaction	53
Mar 30	Multistep Synthesis Research Module Week One	57
Apr 6	Makeup Lab. • for making up previously-cancelled lab days or labs that individual students missed	
Apr 13	Multistep Synthesis Research Module Week Two	57
Apr 20	Amine Unknowns	59
Apr 27	Carboxylic Acid Unknown and Titration • Catchup, Cleanup, Checkout	63

Grading Policy:

1. **Attendance:** Laboratory attendance is important! In the event of an absence, you will receive zero points for that experiment.
 - There are two weeks that I've scheduled to accommodate makeup labs.
 - In case of other COVID-quarantine necessitated makeup labs, contact Dr. Jasperse.
2. **Individual Lab Scores:** Most experiment will require completion of a lab report, perhaps answers to some questions, and often identification of unknowns. Some of the grade will be based on quality of results, for example successful identification of an unknown, or high yield, or high product purity. Unless notified otherwise lab reports should be completed by the following lab period. For lab reports in which you are required to answer some questions, these will count into the lab report scores.
3. **Write Your Own Lab Report.** While some experiments may perhaps be done with a partner, you should keep your own observations and write your report individually, unless told otherwise.
4. Instructor's **evaluation of your laboratory technique and understanding:** This can contribute up to 20% of the total grade. Expect this to be more a grade-lowering factor than a grade-elevating factor.

Tentatively letter grades will be assigned as follows. There will be some + and – grades.

A/A-	(≥90%)
B-/B/B+	(≥80%)
C-/C/C+	(≥70%)
D-/D/D+	(≥60%)

Safety Notes: Noncompliance may result in dismissal from lab and a zero for the week!

1. Wear safety goggles in the organic laboratory.
2. Dispose of chemical wastes in appropriate containers.
3. The impact of the chemicals used in some of these experiments on unborn babies is not fully known. If you are pregnant or become so, I advise you to drop organic chemistry laboratory.

Course Description

CHEM 365 Organic Chemistry Laboratory II (1 credit)

Purification, synthesis, and identification of organic compounds, and the study of organic reactions.

Prerequisite: Chem 355

Student Learning Outcomes/Course Objectives

Students should master the laboratory techniques required for various synthetic reactions, and for the characterization, identification, and purification of various organic compounds. The ability to identify unknowns, including via use of spectroscopy, is an important outcome goal.

Academic Honesty

Cheating will not be tolerated and will be reported to the Dean of your College and the Vice President for Academic Affairs. It may also be reported to the Student Conduct Committee for further disciplinary action. For a full description of the MSUM Academic Honesty Policy, please see the Student Handbook. (<http://wwwmnstate.edu/sthandbook/POLICY/index.htm>)

Safety & Procedural Information

MSUM Sexual Violence Policy: Acts of sexual violence are intolerable. MSUM expects all members of the campus community to act in a manner that does not infringe on the rights of others. We are committed to eliminating all acts of sexual violence.

MSUM faculty and staff are concerned about the well-being and development of our students. We are obligated to share information with the MSUM Title IX Coordinator in certain situations to help ensure that the students' safety and welfare is being addressed, consistent with the requirements of the law. These disclosures include but are not limited to reports of sexual assault, relationship violence, and stalking. If you have experienced or know someone who has experienced sexual violence, services and resources are available. You may also choose to file a report. For further information, contact Lynn Peterson, Title IX Coordinator, petrlnly@mnstate.edu; 218-477-2967, or Ashley Atteberry, Director of Student Conduct & Resolution, ashley.atteberry@mnstate.edu 218-477-2174; both located in Flora Frick 153. Additional information is available online mnstate.edu/titleix.

Bias Incident Statement: A bias incident is an act of bigotry, harassment, or intimidation that is motivated in whole or in part by bias based on an individual's or group's actual or perceived race, color, creed, religion, national origin, sex, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, or familial status. If you are a student who has experienced or witnessed a hate or bias incident, we want to address the incident and provide you with resources. Contact the Campus Diversity Officer, Jered Pigeon_ (jered.pigeon@mnstate.edu, 218-477-2047, 114 CMU) or the Dean of Students, Kara Gravley-Stack (kara.gravleystack@mnstate.edu, 218-477-4222, 153 Flora Frick Hall). Additional information is available at: <https://www2.mnstate.edu/oscar/>.

Student Grievance/Complaint Process: This general procedure is applicable only to those administrative actions for which no special grievance procedure has been established. Special procedures have been established for certain academic (e.g., graduation, grades), student conduct, discrimination/harassment, and employment related matters. Students desiring to appeal actions or procedures of University administrative offices must meet with the following officials, continuing up the hierarchy as necessary to resolve the issues.

Academic Affairs

1. Department Chair of the academic discipline in which the problem arose
2. Dean of that college discipline
3. Provost and Senior Vice President for Academic Affairs
4. President

Administrative Affairs

1. Director of specific area
2. Vice President for Administrative Affairs
3. President

Student Affairs

1. Director of specific area
2. Vice President for Student Affairs
3. President

This process can also be found in the Policies and Procedures section of the [Student Handbook](#) (p. 12) (mnstate.edu/student-handbook/).

Building Emergency Plans: Whether taking your courses online, hybrid, Hyflex, or face-to-face, you may find yourself on campus at some point, so best to be prepared and aware. Building floor plans showing emergency exit routes, fire extinguisher locations and fire alarm pull stations are conspicuously located in classrooms, labs, conference rooms, departmental main offices and residence halls. The Emergency Preparedness Guides (flip style booklets) are located with the maps. Please review the floor plans as well as the guide so you know how to respond in an emergency to help protect yourself and others. If you have questions, please contact Ryan Nelson, Director of [Public Safety](#), at ryan.nelson@mnstate.edu or 218-477-5869. (mnstate.edu/public-safety/).