

**CHEMISTRY 365 SYLLABUS****Spring 2009****Organic Chemistry Laboratory II**

Dr. Craig P. Jasperse

e-mail: [jasperse@mnstate.edu](mailto:jasperse@mnstate.edu)

Telephone: 477-2230

web: <http://www.mnstate.edu/jasperse/>

Classroom: Hagen325 (prelab), SL307 (lab)

Required Text and Materials:

1) Safety Goggles

2) Lab Manual (in house)

Office: Hagen 407J

Office Hours: Mon 12-1, 3:30-4:30

Tues 12:30-2:30

Wed 12:00-2:00

Thurs: 12:30-2:30

Fri: 12:00-2:00

Lab Schedule

	Tuesday 9-12	Wednesday 2:30-5:30	Thursday 9-12
Prelab:			
<u>Date</u>	<u>Experiment</u>		
Jan 13-15	Checkin. Diels-Alder Reaction.		
Jan 20-22	Cyalume: Chemiluminescence		
Jan 27-29	Nitration of Methyl Benzoate		
Feb 3-5	Friedel-Crafts Alkylation of 1,4-Dimethoxybenzene		
Feb 10-12	Alcohol to Ester; Catalysis; Distillation; NMR		
Feb 17-19	Alcohol Unknown (NMR)/Synthesis of Aspirin		
Feb 24-26	Alcohol/Amines Unknowns/Derivative		
Mar 3-5	Aldehydes and Ketones Unknown/Derivative		
Mar 10-12	Acid Unknown; Organic Titration; Derivative		
Mar 24-26	Dibenzalacetone by Aldol Condensation		
Mar 31-Apr 2	Wittig Reaction		
Apr 7-9	Sandmeyer Reaction		
Apr 14-16	Unknown Unknowns		
Apr 21-23	No Lab. Tuesday no class, Academic Conference.		
Apr 28-30	Unknowns (continued), Cleanup, Checkout		

**Keys:** Lab drawer keys can be picked up at the key issuing office, Owens 209 (phone 477-2925). They should be available by Tuesday, January 20. At end of semester, keys need to be returned to Owens 209. Penalties for failure: a) \$25 fine, and b) you won't be able to register again until you return it.

**Grading Policy:**

1. **Attendance:** Laboratory attendance is important! In the event of an absence, you will receive zero points for that experiment. Attending a different session for a given week may be possible upon arrangement.
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 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.

Tentatively letter grades will be assigned as follows:

<b>A</b>	(≥90%)
<b>B</b>	(≥80%)
<b>C</b>	(≥70%)
<b>D</b>	(≥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://www.mnstate.edu/sthandbook/POLICY/index.htm>)

**Special Accommodations**

Students with disabilities who believe they may need an accommodation in this class are encouraged to contact Greg Toutges, Coordinator of Disability Services at 477-5859 (Voice) or 1-800-627-3529 (MRS/TTY), CMU 114 as soon as possible to ensure that accommodations are implemented in a timely fashion.