Course Syllabus
Organic Chemistry Lab-CHEM 3018-001

Instructor: Stacey A. Lomenzo, PhD
Semester: Fall 2015
Class Time: Monday 2:00-5:00 pm CSB 329
Texts: UNO Chem3018-Organic Lab 2 manual, ed. 2
Office: CSB 319
Office Phone: 280-7337 (or contact me at slomenzo@uno.edu)
Office Hours: M 11-1, Th 12-1 (or by appointment)
Prerequisite: Completion of CHEM 2017, CHEM 2217, and completion or with concurrent enrollment in CHEM 3218
Graduate TA: Rebecca Hron (rhron@uno.edu); Office: CSB 326; Office hrs: by appt only

Course Description: This lab course is designed to complement CHEM 3218 (Organic Chemistry 11). Reaction mechanisms and syntheses will be studied over the course of the term. Techniques learned in CHEM 2017 will also be further developed.

Learning Outcome: Students will be competent in basic organic laboratory techniques. This includes synthesis and analysis of organic compounds as well as spectroscopic identification of organic compounds.

Lab Manuals: Lab manuals can be purchased from the University Bookstore. Each student is required to have his/her own copy of the text. Photocopies will not be accepted. TAs must sign the observation and data section of the student’s lab notebook before the end of the lab period. This will serve as lab attendance and to help verify lab performance.

Classroom Attire:
Goggles/Safety Glasses can be purchased from the bookstore, UNO Graduate Chemical Society Table in front of the Gen. Chem. Labs, or from any hardware store (Home Depot, Lowes, Ace). Eye protection must meet two requirements: 1) ANSI Z87 rated and 2) Provide good splash protection for your eyes. Safety glasses must sit close enough to the face so that nothing can splash into the eyes from the side or below.
Scrubs/Lab coats are recommended but not required (If purchasing, 100% cotton is recommended). Lab coats can be purchased from a medical supply store or online from Amazon.
Other recommended items: A calculator, pencil (for TLCs), pen and a Sharpie (for labeling glassware).

Attendance: Attendance is mandatory for all laboratory meetings. If you must miss lab, inform the instructor and the TA immediately by email. Unexcused absences from lab will result in a zero for that experiment. Excused absence documentation must be brought to the instructor within one week. Excused absences can be made up during Makeup Days listed on the Lab Schedule. Students must still take and pass the pre-lab quiz in order to perform the lab experiment on Makeup Days. There will be six total Makeup Days for all sections over the course of the semester.
Grading and Classroom Procedures: There are a total of 1000 points available for this class. A point breakdown of each assignment is shown below. Each student must take a safety quiz online after viewing the online safety lecture posted on Moodle. Students must obtain a 100% on the safety quiz to continue in the course. There are 8 experiments scheduled and each will require a pre-lab quiz and post-lab report. There will be a midterm practical exam and a final practical exam consisting of a multistep project for which each student will write an individual formal report. Students will receive a zero on missed assignments unless it is an excused, documented absence. The grading scale for this course is as follows: A=90%(900); B=80%(800); C=70%(700); D=60%(600).

Point Breakdown

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Total</th>
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<tbody>
<tr>
<td>Safety Quiz</td>
<td>20pts x 1</td>
<td>20pts</td>
</tr>
<tr>
<td>Pre-Lab Quizzes</td>
<td>10pts x 8</td>
<td>80pts</td>
</tr>
<tr>
<td>Weekly Lab Reports</td>
<td>85pts x 8</td>
<td>680pts</td>
</tr>
<tr>
<td>Midterm Practical Exam</td>
<td>100pts x 1</td>
<td>100pts</td>
</tr>
<tr>
<td>Final Practical Exam</td>
<td>120pts x 1</td>
<td>100pts</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1000pts</strong></td>
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Lab Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Exp. #</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Aug 24</td>
<td>0</td>
<td>Safety Lecture</td>
</tr>
<tr>
<td>Aug 31</td>
<td>1</td>
<td>Diels-Alder Synthesis</td>
</tr>
<tr>
<td>Sept 7</td>
<td>X</td>
<td>NO Class: Labor Day</td>
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<tr>
<td>Sept 14</td>
<td>2</td>
<td>Electrophilic Aromatic Substitution</td>
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<tr>
<td>Sept 21</td>
<td>3</td>
<td>Identification of Unknown: Aldehydes and Ketones</td>
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<tr>
<td>Sept 28</td>
<td>4</td>
<td>Wittig Reaction</td>
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<tr>
<td>Oct 5</td>
<td>Exam</td>
<td>Midterm Practical Exam: Macroscale Synthesis</td>
</tr>
<tr>
<td>Oct 12</td>
<td>X</td>
<td>Excused Absence Makeup Day (open to all sections)</td>
</tr>
<tr>
<td>Oct 19</td>
<td>5</td>
<td>Synthesis of a Chemiluminescent Compound</td>
</tr>
<tr>
<td>Oct 26</td>
<td>6</td>
<td>Esterification and Saponification</td>
</tr>
<tr>
<td>Nov 2</td>
<td>7</td>
<td>Synthesis of Dyes</td>
</tr>
<tr>
<td>Nov 9</td>
<td>8</td>
<td>Phenols and Amines: Multistep Synthesis</td>
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<tr>
<td>Nov 16</td>
<td>Exam</td>
<td>Final Exam Project: Week 1</td>
</tr>
<tr>
<td>Nov 23</td>
<td>Exam</td>
<td>Final Exam Project: Week 2</td>
</tr>
<tr>
<td>Nov 30</td>
<td>X</td>
<td>Excused Absence Makeup Day (open to all sections)</td>
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**Pre-Lab Quizzes:** Pre-lab quizzes should be taken online. Online quizzes are open book, and timed (10 minutes per quiz). Quizzes will become available at the beginning of the lab period prior to the corresponding experiment and this availability will end one hour before the corresponding lab begins. For example, the pre-lab quiz for Exp. 2 will open online at the beginning of the lab period for Expt. 1 and it will close one hour before the lab period for Exp. 2. Students will have two attempts to obtain a passing grade of 80%. Students who fail both attempts online will be given the opportunity to take a paper version of the quiz at the beginning of the lab period. **Students must use BOTH online attempts in order to be eligible to take a paper quiz.** The paper quiz is untimed and closed book. The paper quiz is used only to determine your eligibility to participate in lab. This means a passing grade of 80% is still required on the paper quiz; however, whatever grade was received for the online quiz will stand as the final quiz grade. Students will not be allowed to participate in the corresponding experiment if a grade of 8/10 is not obtained (either on the online quiz or on the paper quiz). There are NO exceptions to this rule. The pre-lab quizzes are given to test the student’s knowledge of the experiment he/she is about to perform; lack of knowledge can be a safety hazard in the lab to the student and to his/her peers.

**Weekly Lab Reports:** Weekly lab reports should be prepared using the Lab Report Guidelines and sample report posted on Moodle. Students are expected to follow the guidelines when writing lab reports. Weekly lab reports along with corresponding experimental manual pages and questions are due at the beginning of the next lab period unless otherwise specified (see schedule below). Late penalties (10 points per day, excluding weekends) will be incurred if reports are not handed in on the due date. If a lab is performed during a Makeup Day the report will be due one week after completion of the lab at the beginning of the lab period.

**Lab Report Submission:** All lab reports must be submitted on Moodle through TurnItIn for an originality assessment. Students will be able to see the first similarity score immediately and will be allowed to make corrections and resubmit reports up to the deadline. Resubmissions can take up to 24 hrs to process and will show as pending until reports are processed. While pending, reports are considered “turned in” as the TurnItIn software records the date of submission. TAs will only grade reports with similarity scores of 25% or less; anything higher will be considered in the realm of plagiarism. If a score of higher than 25% is determined the report will be assessed for plagiarism and graded at the discretion of the TA/ overseer. Please remember that a low originality score does NOT automatically mean that plagiarism does not occur in the report; it merely guarantees that the TA will grade the report.

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<tr>
<th>Due</th>
<th>Report</th>
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<td>Sept. 14</td>
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<td>Sept. 21</td>
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<td>Sept. 28</td>
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<tr>
<td>Oct. 5</td>
<td>4</td>
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<tr>
<td>Oct. 12</td>
<td>Midterm Report</td>
<td>Midterm</td>
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<tr>
<td>Oct. 26</td>
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<td>5</td>
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<tr>
<td>Nov. 2</td>
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<td>Nov. 9</td>
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<tr>
<td>Nov. 16</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Nov. 30</td>
<td>Final Report</td>
<td>Final</td>
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**Lab Report Grading:** All lab reports will be graded based on the appropriate rubric. Rubrics for each type of report are posted on Moodle. Dry labs are graded based on the manual pages/packets turned in during class and do not require a written report.

**Mid Term:** The midterm practical exam for this course is an individual macroscale synthesis. The procedures can be found in the lab manual. Students will have 90 minutes to complete the assigned synthesis, characterization and collection of data necessary for the final report. Each student must also clean up and return his/her lab station to the state in which it was found. Failure to do so may result in point penalties on the final report. Students must submit an extended version of the weekly lab report for the midterm report. See midterm lab report guidelines and sample report posted on Moodle. The midterm report must be submitted online through the TurnItIn assignment for an originality assessment. An identical hard copy of the report along with all manual pages must be submitted to the TA for grading.

**Final:** The final practical exam for this course will be a macroscale multistep project that will be completed with a lab partner with minimal assistance from the TA. As a team, lab partners will complete a multistep synthesis and characterize intermediates and final product. Students will individually report their findings in a final report. Each student must submit an extended version of the weekly lab report for the final report. See Finals lab report guidelines and sample report posted on Moodle. The final report must be submitted online through the TurnItIn assignment for an originality assessment. An identical hard copy of the report along with all lab manual pages must be submitted to the TA for grading.

**Academic Honesty:** Plagiarism is taken very seriously at UNO. Students are required to take a test to show his/her understanding of the definition of plagiarism. A signed pledge promising not to commit plagiarism in the preparation of lab reports is also required. This course’s policy of plagiarism is as follows:

1) 1st offence: loss of all points for that section of report
2) 2nd offence: Zero (0) on report, meet with Instructor and TA to discuss Academic dishonesty.
3) 3rd offence: grade of F in class, matter turned over to Academic Affairs for further processing.

**Plagiarism**

To steal and use (the ideas or writings of another) as one’s own. 2) To appropriate passages or ideas from (another) and use them as one’s own . . . To take and use as one’s own the writings or ideas of another.” - definition from The American Heritage Dictionary of the English Language, W. Morris, Ed. American Heritage publishing Company, Inc. and Houghton Mifflin Company: New York, 1969.
Verbatim, or word for word copying, is the most obvious form of plagiarism. However, substantially copying the ideas or presentation of another, even when wording has been changed, can also constitute plagiarism.

**Accommodations for Students with Disabilities:** Students who qualify for services will receive the academic modifications for which they are legally entitled. It is the responsibility of the student to register with the office of Disability Services (LIB120) each semester prior to the start of lab and follow their procedures for obtaining assistance. Disability accommodations will not be retroactive.

**Disability Statement:**
The Office of Disability Services (ODS) in conjunction with the Office of Academic Affairs campus wide administrative policy regarding the accommodations of students with disabilities, has two primary objectives: 1) to ensure compliance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act (ADA) in regard to equal access for qualified students to academic programs; and 2) to uphold the academic integrity of UNO. When these two objectives are met, those students who qualify for services based on clear, comprehensive, and relevant documentation will receive those services or academic modifications for which they are legally entitled.

**Classroom Conduct**
1. Be in class on time. Please do not come five, ten or twenty minutes late. Distracting interruptions are inconsiderate, disrespectful, and time-wasting. There is no excuse for repeatedly arriving late. Parking is often a hassle; allow enough time for it. Cell phones should be turned off before class begins.
2. Feel free to ask questions of the instructor during class.
3. Students are expected to treat faculty and fellow students with respect. Any actions that purposefully and maliciously distract the class from the work at hand will not be allowed.
4. Civility in the classroom and respect for the opinions of others is very important in an academic environment. It is likely you may not agree with everything that is said or discussed in the classroom. Courteous behavior and responses are expected.
5. Standard laboratory safety procedures must be followed.

**Class Help:** Free tutoring for many courses is available On-Campus from the UNO Learning Resources Center: [http://lrc.uno.edu/](http://lrc.uno.edu/)

Free chemistry tutoring available in the Chemistry Learning Center (CSB 101)
Important Dates*
Last day to adjust schedule w/out fee ....08/18/2015
Semester Classes Begin .........................08/19/2015
Last day to adjust schedule w/fee, or withdraw with 100% refund .............08/25/2015
Last day to apply for December commencement .........................................................09/25/2015
Final day to drop a course or resign ........10/14/2015
Mid-semester examinations ........... 10/05-10/09/2015
Final examinations ................ 12/07-12/11/2015
Commencement .......................................12/18/2015

*Note: check Registrar’s website for Saturday and A/B sessions, and for items not listed here:
http://www.registrar.uno.edu

Fall Semester Holidays
Labor Day ...........................................09/07/2015
Mid-semester break ....................... 10/15-10/16/2015
Thanksgiving .............................. 11/26-11/27/2015

Withdrawal Policy – Undergraduate only
Students are responsible for initiating action to resign from the University (withdraw from all courses) or from a course on or before dates indicated in the current Important dates calendar. Students who fail to resign by the published final date for such action will be retained on the class rolls even though they may be absent for the remainder of the semester and be graded as if they were in attendance. Failure to attend classes does not constitute a resignation. Check the dates on the Registrar’s website, http://www.registrar.uno.edu. Please consult The Bulletin for charges associated with dropping and adding courses.

Incomplete Policy – Undergraduate only
The grade of I means incomplete and is given for work of passing quality but which, because of circumstances beyond the student’s control, is not complete. The issuance of the grade of I is at the discretion of the faculty member teaching the course. For all graduate and undergraduate students, a grade of I becomes a grade of F if it is not converted before the deadline for adding courses for credit (as printed in the Important Dates Calendar) of the next regular semester including summer semester.

Repeat Policy
When a student is permitted to repeat a course for credit, the last grade earned shall be the one which determines course acceptability for degree credit. A student who has earned a C or better in a course may not repeat that course unless, (1) the catalog description indicates that the course may be repeated for credit, or (2) the student's Dean gives prior approval for documented extenuating circumstances.

Graduate Policies
Graduate policies often vary from undergraduate policies. To view the applicable policies for graduate students, see the Graduate Student Handbook:

Academic Dishonesty Policy

Safety Awareness Facts and Education
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here:
http://www.uno.edu/student-affairs-enrollment-management/
UNO Counseling Services and UNO Cares
UNO offers care and support for students in any type of distress. Counseling Services assist students in addressing mental health concerns through assessment, short-term counseling, and career testing and counseling. Find out more at http://www.uno.edu/counseling-services/. First-year students often have unique concerns, and UNO Cares is designed to address those students succeed. Contact UNO Cares through http://www.uno.edu/fye/unocares.aspx.

Emergency Procedures
Sign up for emergency notifications via text and/or email at E2Campus Notification:
http://www.uno.edu/ehso/emergency-communications/index.aspx. All emergency and safety procedures are explained at the Emergency Health and Safety Office: http://www.uno.edu/ehso/

Diversity at UNO
As the most diverse public university in the state, UNO maintains a Diversity Affairs division to support the university’s efforts towards creating an environment of healthy respect, tolerance, and appreciation for the people from all walks of life, and the expression of intellectual point of view and personal lifestyle. The Office of Diversity Affairs promotes these values through a wide range of programming and activities.
http://diversity.uno.edu/index.cfm

Learning and Support Services
Help is within reach in the form of learning support services, including tutoring in writing and math and other supplemental instruction. Visit the Learning Resource Center in LA 334, or learn more at http://www.uno.edu/lrc/

Affirmative Action and Equal Opportunity
UNO is an equal opportunity employer. The Human Resource Management department has more information on UNO’s compliance with federal and state regulations regarding EEOC in its Policies and Resources website: http://www.uno.edu/human-resource-management/policies.aspx