CHEMISTRY 4:141 – Organic Chemistry Laboratory– Summer 2011

Lecture MW 7:30-8:20AM (W228 CB)
Laboratory A01: MTWTh 8:30- 11:20AM, (W468 CB)
Laboratory A02: MTWTh 8:30- 11:20AM, (E464 CB)

<table>
<thead>
<tr>
<th>Professor</th>
<th>Mouna Maalouf</th>
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<tbody>
<tr>
<td>Office</td>
<td>E323 Chemistry Bldg</td>
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<tr>
<td>Phone</td>
<td>335-1108</td>
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<tr>
<td>Email</td>
<td><a href="mailto:mouna-a-maalouf@uiowa.edu">mouna-a-maalouf@uiowa.edu</a></td>
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<tr>
<td>Office Hrs (or by appt)</td>
<td>M 11:30-12:30PM Th 11:30-12:30PM</td>
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Course Structure and Instructors
Chemistry 4:141 has components with different instructors and scheduling. It is recommended that students devote ≥ 6 h/week to out-of-class studying (reading laboratory manual, writing prelabs, lab reports) and data interpretation (3 credits x 2 out-of-class h/credit).
(1) Lecture - Prof. Maalouf
(2) Laboratory - Prof. Maalouf, and, graduate student teaching assistants (TA)
(3) Exams – Prof. Maalouf

Laboratory Section
There are two laboratory sections:
Laboratory A01: 8:30- 11:20AM, MTWTh W468 CB; TA: Andrew Cox and Adam Brummett
Laboratory A02: 8:30- 11:20AM, MTWTh E464 CB; TA: Justine Olson and Abhinaba Gupta

Course Goals
• introduce students to standard organic chemistry laboratory techniques
• provide experience conducting organic reactions
• introduce methods of separation and identification of organic compounds

Prerequisites
4:012 (or 4:016 from old system) AND 4:121 or 4:123 AND a grade of C or higher in 4:121, 4:123, 4:122, or 4:124; Co- or Prerequisite: 4:122 or 4:124

TA Office Hours
Teaching assistants have scheduled office hours in Room E244 of the Chemistry Building (on east side of building, 2nd floor). This room is normally open 9:30 AM - 2:30 PM, Monday - Friday. TAs for chemistry courses other than Chem 4:141 may also be able to assist you.

office hours: to be announced in lab and posted on ICON.

Course Materials
Required Text: “Organic Chemistry Laboratory Manual” [download from website]
Required Equipment: laboratory goggles, gloves
laboratory notebook (with duplicate carbonless pages)

Course Website
Organic Chemistry Laboratory 4:141, Iowa Courses Online (ICON) website URL = http://icon.uiowa.edu/.
**Course Administration**

Please go to the Chemistry Center, Room E225 Chemistry Building, for drop/add signatures, make-up exam scheduling, course handouts, alternate textbooks, section changes, and tutor lists. Hours are Monday-Thursday, 8:00 AM-12:00 & 1:00-5:00 PM and Friday 8:00 AM-12:00 & 12:30-4:30 PM. The Chemistry Center Manager is Jessica Alberhasky (335-1341 or <jessica-alberhasky@uiowa.edu>).

**Special Needs**

Students with disabilities requiring modification of seating, testing, or other course arrangements should contact the Office of Student Disability Services (SDS), 3101 Burge, 335-1462, and then go to the Chemistry Center, E225 CB. ([www.clas.uiowa.edu/faculty/teaching/classroom_p&p/disabilities.shtml](http://www.clas.uiowa.edu/faculty/teaching/classroom_p&p/disabilities.shtml))

**Complaints**

Complaints and appeals regarding this course, its instructors, or its TAs can be filed with the Departmental Executive Officer (DEO) at the Department of Chemistry administrative offices, Room E331 CB (335-1350). Students are encouraged to first meet with the course’s professor with their concerns about course aspects, TA, lectures, or exams.

**Grading**

There will be two hour exams, 12 laboratory reports, and two TA evaluations. The TA evaluations will be based on the TAs observations of proper use of the lab notebook and effective mastery of lab techniques (including safety). Final grade distribution will follow CLAS guidelines as closely as possible: A (18%), B (36%), C (39%), D (5%), F (2%). Plus & minus grades will be assigned.

**A total of 800 points is possible:**
- Hour exams (2 x 100) = 200 pts
- TA evaluations (2 x 20) = 40
- Pre-Lab (flow sheet + sections A-F in notebook) = 110 pts
- Laboratory reports = 450

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<thead>
<tr>
<th>Expmt #</th>
<th>Title</th>
<th>Report</th>
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<tbody>
<tr>
<td>1</td>
<td>Literature</td>
<td>30</td>
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<tr>
<td>2a</td>
<td>Distillation and GC</td>
<td>30</td>
</tr>
<tr>
<td>2b</td>
<td>Chromatography and Extraction</td>
<td>40</td>
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<tr>
<td>3</td>
<td>NMR Spectrometry</td>
<td>40</td>
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<tr>
<td>4</td>
<td>Acetaminophen</td>
<td>30</td>
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<tr>
<td>5</td>
<td>Isolation</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>Diels-Alder</td>
<td>30</td>
</tr>
<tr>
<td>7</td>
<td>Grignard (2 weeks)</td>
<td>70</td>
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<tr>
<td>8</td>
<td>Wittig</td>
<td>30</td>
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<tr>
<td>9</td>
<td>Unknowns</td>
<td>60</td>
</tr>
<tr>
<td>10</td>
<td>Green Chemistry</td>
<td>30</td>
</tr>
<tr>
<td>11</td>
<td>Molecular Modeling</td>
<td>30</td>
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<td><strong>Total</strong></td>
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**Attendance Requirement:** If you have more than two lab absences, whether excused or not, you cannot receive a passing grade. In these cases, the result will be I, incomplete (in the event of University-approved excused absences) or F, fail (if the absences are unexcused).
Examinations
There are two 1-hour exams:
Exam 1: Thursday, June 30th, 7:30-8:20AM in W228 CB.
Exam 2: Tuesday, July 26, 7:30-8:20AM in W228 CB.

Exams will ONLY be given at the designated times. The exams, all closed book, will include short answer questions. All exams must be written in permanent ink (blue or black). Exams written in pencil or erasable ink will not be regraded. Data transmitting devices (e.g., PDA, laptop, and especially cell phone) will not be allowed in the examination room under any circumstances. Out of fairness to all other students, exams will not be re-scheduled in order to accommodate personal holiday or travel plans.

Regrades
Lab reports can be submitted for re-evaluation for one of the following reasons:
• addition error(s)
• a portion designated as missing or incomplete is present or complete
Lab reports can only be submitted for re-evaluation within 3 work days after they were returned to you and should be date/time stamped in the Chem Center. A request should be written on a cover page attached to the report. The ENTIRE report will be re-evaluated. Late reports and assignments should be submitted via the Chemistry Center. They should be date and time stamped using the time clock and left in the Chem Center. A penalty of 10% of the available points per day will be assessed. Reports that are a week or more late will only be accepted with special permission from the instructor. They should be time stamped and submitted directly to the instructor.

Exams to be regarded should be turned in at the Chemistry Center no later than 3 work days after the initial date of return. Items to be re-graded must be clearly marked on the front page with a brief explanation of what you believe was graded incorrectly. The ENTIRE exam will be re-evaluated. After 1 week of the initial date of return, all grades are final.

Make-Up Examinations
If an examination is missed because of illness, family emergency, or other University-sanctioned reason, written documentation must be submitted to the Chemistry Center no later than 3 work days after the missed exam in order to qualify for a make-up examination. Excused absence forms are required and are available at the Registrar web site: www.registrar.uiowa.edu/forms/absence.pdf. (There will be no make-up exam for the Exam 2)

Safety
The course is designed to be safe when students follow appropriate, defined procedures and use the lab materials in the designated way. Safety is enhanced when all students are properly prepared and alert:
• You must pass the safety quiz with 100% and sign it before you are allowed to work in the lab.
• Show up and leave on time. Do not enter the lab until a TA or instructor is present. Come prepared in every aspect (content preparation, goggles, clothing)
• Wear safety goggles at ALL times. The TA may make a few introductory comments before any equipment or materials are out. Glasses must be worn from that point until you leave. Wearing contact lenses is discouraged.
• Feet, legs, and the midriff should be covered. (You can carry a pair of sweats and tennis shoes during warm weather.)
• Eating, drinking, and smoking are prohibited in the lab at ALL times. No flames are allowed in the lab. Wash you hands right before you leave.
• Report ALL injuries of any kind to the TA. You should even report a minor cut or burn to the TA before you go to the bathroom to wash it.
• Solvents, solids, and sharp items must be disposed of properly. NOTHING goes down the sink.
• An organic chemical may pose a different level of hazard to an adult than to an unborn fetus. Students who are pregnant or think that they might become pregnant during the course should discuss their enrollment in this course with their physician(s). Material safety data sheets MSDS are available and the chemical materials used are listed in the manual or via additions/corrections provided during the lecture portion.
• Safe practice in the lab requires that students be able to hear warnings or announcements. Lab computers MAY NOT be used to play music; personal music devices even with headphones (i.e., tape, CD, or MP3 players) are not appropriate for labs. You should remove them and shut off cell phones before lab starts.

A student will be asked to leave the laboratory for the entire lab period (and will receive NO credit for that day’s activities or any report or assignment derived from the work) for the following behaviors:
• Repeated refusal to wear safety goggles or to conform to the safe lab dresscode (i.e., covered feet, legs and midriff)
• Conducting experiments or activities using equipment and chemicals other than the assigned activities. The course wishes to promote independent thinking; independent experiment design and performance is NOT allowed.
• Improper behavior that puts oneself or another individual at risk. Egregious improper behavior is grounds for dismissal from the course.

**How to Avoid Academic Misconduct**

*Exams:* Individuals must work alone.

*Laboratory experiments:* Experiments must be conducted independently by each student, except when instructed by the TA to work in groups. Discussion before, during and after the lab is encouraged.

*Laboratory reports:* Individuals must work alone. Copying is considered plagiarism. Representing scientific or professional work of others as your own is unethical and dishonest. Consistent with expected behavior, plagiarism, cheating and copying will not be tolerated. Students who do will be given an F in the course and the case will be reported to the Office of Academic Affairs.
College of Liberal Arts and Sciences: Policies and Procedures

Administrative Home
The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Student Academic Handbook.

Electronic Communication
University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences. (Operations Manual, III.15.2. Scroll down to k.11.)

Accommodations for Disabilities
A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See www.uiowa.edu/~sds/ for more information.

Academic Fraud
Plagiarism and any other activities when students present work that is not their own are academic fraud. Academic fraud is a serious matter and is reported to the departmental DEO and to the Associate Dean for Undergraduate Programs and Curriculum. Instructors and DEOs decide on appropriate consequences at the departmental level while the Associate Dean enforces additional consequences at the collegiate level. See the CLAS Academic Fraud section of the Student Academic Handbook.

CLAS Final Examination Policies
Final exams may be offered only during finals week. No exams of any kind are allowed during the last week of classes. Students should not ask their instructor to reschedule a final exam since the College does not permit rescheduling of a final exam once the semester has begun. Questions should be addressed to the Associate Dean for Undergraduate Programs and Curriculum.

Making a Suggestion or a Complaint
Students with a suggestion or complaint should first visit the instructor, then the course supervisor, and then the departmental DEO. Complaints must be made within six months of the incident. See the CLAS Student Academic Handbook.

Understanding Sexual Harassment
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather
In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Public Safety web site.

*These CLAS policy and procedural statements have been summarized from the web pages of the College of Liberal Arts and Sciences and The University of Iowa Operations Manual.