CHEM 336, SPRING 2018
ORGANIC CHEMISTRY II LABORATORY

Instructor: Prof. Michael Rubin (5088 Malott) mrubin@ku.edu
Laboratory Director: Dr. Marina Rubina (4025 Malott) mrubin3@ku.edu

Course materials:

**TOPHAT SUBSCRIPTION: 1-SEMESTER ACCESS (DIGITAL ACCESS)**
BY TOPHAT
9780986615108
REQUIRED

**ORGANIC CHEM STUDENT LAB NOTEBOOK (NEW ONLY)**
BY HAYDEN MCNEIL
9781930882461
REQUIRED

**ETEXT ACCESS F/MCCANN'S LABORATORY TECHNIQUES (DIGITAL ACCESS-P)**
BY TOPHAT
2810000102448
REQUIRED

Students who took Chem 331 in Fall 2017 should already have the correct materials. Organic Chemistry, 3rd ed. by D. Klein (required for chem 335 course) is also recommended for chem 336

TOPHAT LINK: www.tophat.com
CHEM 336 - Spring 2018 Join Code: 441818

Notebook: A bound laboratory notebook with alternating carbon paper is required. Each page in the notebook must be numbered and dated. The first page must contain a Table of Contents. At the end of the laboratory period, teaching assistants will initial notebook pages containing new experimental data. DO NOT leave the laboratory before your notebook is inspected!

Lectures: Tuesday 9:30-10:45 am, Budig 130
Attendance in the lectures is strongly advised because a substantial amount of material not easily available from other resources and not directly related to the specific experiments will be presented. Some of the materials will not be posted on the Course Blackboard but only discussed in the lectures. Tips for exam preparation will be also provided ONLY during the lectures. As an additional incentive to attend lecture, lecture quizzes for credit will be offered (administered through TOPHAT).
Laboratories: Laboratories will be held once a week Monday through Thursday (refer to Lab Section and TAs document posted on Blackboard). Registration for one section of laboratories is required. Unless clearly specified otherwise, all aspects of the work in the laboratory (lab quiz, in-lab write up, and the lab report) must be performed and completed individually by each student. Plagiarism will not be tolerated.

Make-up Laboratory Policy: If you are unable to attend your regular laboratory session due to an unplanned event such as illness or family emergency, you will be excused for that period and will be allowed to make up the missed lab. You must notify ASAP your TA and laboratory director (Dr. Marina Rubina). We can arrange for you to perform the missed experiment with another section within the same week (preferred). Alternatively, a missed lab can be made up during the make up lab session on Friday, April 13 at 12:00-3:00 pm. You must notify the lab director in advance (by April 11) if you plan to attend this session. Zero points will be assigned for an unexcused missed lab, where no proper medical or other emergency excuse documentation is provided. If you miss more than two laboratory sessions, you will receive an F for the course.

Examinations: There will be two (2) examinations.

1. MIDTERM EXAMINATION (60 points)
The midterm will be held on Thursday night March 8, 8–10 pm in Budig 130.

2. FINAL EXAMINATION (Comprehensive on all covered material)
Monday, May 7th, 7:30–10 am, Room TBA (90 points).

In-Class Quizzes: There will be 10 in-class quizzes (administered through TOPHAT, starting from Lecture 3). Each quiz will be worth 3 points (30 points total).

On-line Pre-lab quizzes: There will be total of 10 pre-lab quizzes, each consisting of 4 questions (40 points total). Home pre-lab quizzes will be assigned through TOPHAT. The first quiz will open on Tuesday, Jan 30, at noon, and will be due next Monday, Feb 5, at noon, for all sections. Each quiz will cover the theoretical background for the experiment discussed in the relevant lectures, and the material presented in the assigned reading pertaining to the LABORATORY PROTOCOL and the TECHNIQUE.

In-lab quizzes: Each lab period will begin with a short quiz (4-5 questions); 5 points/quiz, part of total 30 lab points. If you arrive more than 10 minutes late, you will not be allowed to take the lab quiz and will lose 5 points.

Advanced Laboratory Preparation: Both the initial portion of the notebook write-up (pre-lab), as well as any pre-lab assignments must be completed prior to each laboratory period. Refer to the LAB REPORT FORMAT document (posted on Blackboard). Failure to complete the pre-lab write up will be reflected by a reduction in the grade for the Laboratory Technique.

Deadlines for Lab Reports and Products: your TA must check the notebook write-up (observation and results portion) and any product(s) by the end of the same laboratory period. Complete typed lab report with attached relevant notebook pages, must be posted on SafeAssign and turned to your TA before the start of the next lab period except when informed otherwise. Late submissions (either electronic or hard copy) will be a subject to 3 points deduction. Late reports will be accepted until the end of the day on Thursday of the week when reports are due. For example, if you are in a Tuesday section and forgot to submit your lab report by Tuesday 7:30 am, you can still turn it in by Thursday and have it graded, with a 3 point deduction. Zero points will be assigned for reports that lack electronic copy after this Thursday deadline, unless they result from a legitimate and documented absence as determined by the course instructor and your TA. Refer to the LAB REPORT FORMAT document for details.

Lab Report Grading Each laboratory effort is worth 30 points toward your "experiments" grade. Lab report rubrics will be provided for each experiment. Each lab report (including lab quiz) will be graded by an assigned TA single-handedly for the entire class; thus, each TA will grade only one experiment during the semester. All questions about graded lab reports must be brought to the respective TA’s attention within 2 weeks after the graded work is handed back. In experiments that involve synthesis and isolation of compounds, the compounds must be submitted in
properly labeled containers at the end of the laboratory period. Proper presentation (e.g. vial labeling), yield and purity of the products will be reflected in the technique grade assigned by your section TA at the end of the semester (see below). Refer to the PRODUCT SUBMISSION GUIDELINES and LAB REPORT FORMAT documents posted on Blackboard.

**Technique Grade (max 27 points, 3 points per each wet lab).** This score will be assigned by your TA (and is not a subject for rebuttal with the instructor of the course) and will be based on:

1) Your understanding of what is going on in the lab  
2) Preparation, and general confidence in performing the experiment  
3) Your contribution to the team effort  
4) Neatness, drawer/bench organization, and efficiency  
5) Ability to correctly and effectively use laboratory apparatus  
6) Product appearance, yield, purity, and proper presentation  
7) Adherence to the safety rules and regulations.

**Safety:** You must familiarize yourself with "Safety Regulations for Laboratory Courses Numbered Below 698." Prior to the first wet laboratory session (second week of classes), you will need to take an online safety quiz and pass it with a score of 100% (unlimited attempts, score doesn’t count toward your grade). These materials are available on Blackboard. Violation of safety rules and regulations will result in point deduction (1-3 points, part of Technique Grade above) for each occurrence. The wearing of approved safety goggles with indirect vents is mandated by State Law. Students found in the laboratory without approved goggles will receive a penalty of 10 pts.

**Common Equipment and Balances:** All shared equipment including balances must be kept clean and used according to the instructions of teaching assistants. **Clean-up crews of two students will be assigned for each lab session to ensure proper cleanup of the common areas (e.g. hoods and balances). All students will participate in this duty.**

**DISABILITY ACCOMMODATIONS:** The Academic Achievement & Access Center (AAAC) coordinates accommodations and services for all KU students who are eligible. If you have a disability for which you wish to request accommodations and have not contacted the AAAC, please do so as soon as possible. Their office is located in 22 Strong Hall; their phone number is 785-864-4064 (V/TTY). Information about their services can be found at http://disability.ku.edu. Please also contact the course instructor privately in regard to your needs in this course.

**ACADEMIC MISCONDUCT:** Cheating, or the appearance thereof, including giving or receiving help on an exam, plagiarizing (in part or in whole) laboratory reports, looking at another student's paper while taking an exam or quiz, falsifying exam papers or experimental data, using unauthorized materials, notes, crib sheets, or the equivalent, will not be tolerated and will be dealt with in accordance with University regulations (see http://www2.ku.edu/~unigov/usrr.html#art2sect6). The Chemistry Department reserves the right to make and keep copies of individual examination papers and laboratory reports.

**Intellectual Property Policy:** Course materials prepared by the instructor, together with the content of all lectures and review sessions presented by the instructor are the property of the instructor. Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. On request, the instructor will usually grant permission for students to audiotape lectures, on the condition that the audiotapes are used only as study aids by the individual making the recording. Unless explicit permission is obtained from instructor, recordings of lectures and review sessions may not be modified and must not be transferred or transmitted to any other person, whether or not that individual is enrolled in the course.

**CONSEARED CARRY:** Individuals who choose to carry concealed handguns are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and KU weapons policy. Safety measures outlined in the KU weapons policy specify that a concealed handgun:
• Must be under the constant control of the carrier.
• Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the constant control of the carrier.
• Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position.
• Must have the safety on, and have no round in the chamber.

This course takes place in spaces that will require students to leave belongings such as backpacks and purses away and unattended for the duration of class time. Students who choose to carry a concealed handgun in a purse, backpack, or bag must review and plan each day accordingly, and are responsible for making alternate arrangements as necessary. The university does not provide appropriate secured storage for concealed handguns. Individuals who violate the KU weapons policy may be asked to leave campus with the weapon and may face disciplinary action under the appropriate university code of conduct.

PLEASE REFRAIN FROM THE FOLLOWING ACTIVITIES DURING LECTURE:

1) Talking to your neighbor(s)
2) Reading newspapers, playing games using any electronic gadgets
3) Preparing to leave while the instructor is still lecturing (unless the whistle has sounded)
4) Recording lectures without prior approval from the instructor

Grading:

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<thead>
<tr>
<th>Activity</th>
<th>Points</th>
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<tbody>
<tr>
<td>Lab reports</td>
<td>270 pts</td>
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<tr>
<td>Laboratory examinations</td>
<td>150 pts</td>
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<tr>
<td>Lab Technique</td>
<td>27 pts</td>
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<tr>
<td>In-Class Quizzes</td>
<td>30 pts</td>
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<tr>
<td>Online Pre-lab Quizzes</td>
<td>40 pts</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>517 pts</strong></td>
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Final Letter Grades:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>90% - 92%</td>
<td>A-</td>
</tr>
<tr>
<td>87% - 89%</td>
<td>B+</td>
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<tr>
<td>83% - 86%</td>
<td>B</td>
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<tr>
<td>80% - 82%</td>
<td>B-</td>
</tr>
<tr>
<td>77% - 79%</td>
<td>C+</td>
</tr>
<tr>
<td>Below 76%</td>
<td>F</td>
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**Notes on Grading:**

Letter grades will not be assigned to individual laboratory reports, quizzes, or exams.