

CHEM 331, FALL 2017

ORGANIC CHEMISTRY I LABORATORY

Instructor: Prof. Michael Rubin (5088 Malott) mrubin@ku.edu

Laboratory Director: Dr. Marina Rubina (4025 Malott) mrubin3@ku.edu

Required materials:

- ETEXT ACCESS F/ McCann'S LABORATORY TECHNIQUES (CUSTOM ACCESS CARD) -- 9781773302430 -- Required
- TOPHAT SUBSCRIPTION CARD: 1-YEAR* (ACCESS CARD) -- 9780986615146 -- Required
 - * One semester option is also available
- SPIRAL LAB NOTEBOOK (SKU 1385299) -- 9780978534417 -- Required
- ORGANIC CHEMISTRY (CUSTOM, BOOK ONLY) -- 9781119308119 -- Optional (*most students will have from CHEM 330*)

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 or Thursday 8:00-9:15 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. Registration for one lecture session is required. 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 Friday (refer to the class schedule 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, pre-lab preparation, the experimental procedure, 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 **Tuesday, Dec 5 at 12:00-4:00 pm**. You must notify the lab director in advance (by Dec 1) 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.

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.

Examinations: There will be two (2) examinations.

1. MIDTERM EXAMINATION (60 points)

The midterm will be held on Thursday night October 10, 8–10 pm in Budig 120 and 130.

2. FINAL EXAMINATION (Comprehensive on all covered material)

Thursday, December 14th, 7:30–10 am, Room TBA (90 points).

In-Class Quizzes: There will be 10 in-class quizzes (administered through TOPHAT). 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. 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 (2-3 questions) administered and graded by the TA; 4 points/quiz, part of total 25 lab points. If you arrive more than 10 minutes late, you will not be allowed to take the lab quiz and will lose 4 points.

Advanced Laboratory Preparation: Both the initial portions of the notebook write-up, as well as any pre-lab assignment must be completed prior to each laboratory period. Refer to the **LAB REPORT FORMAT** document (posted on Blackboard) and introductory lecture materials for details. Failure to complete the pre-lab write up will be reflected by a reduction in the grade for the Lab Report.

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 lab report is due at the beginning of the next lab period except when informed otherwise. Late results will not be accepted, unless they result from a legitimate and documented absence as determined by the course instructor and your TA. All questions about graded lab reports must be brought to your TA's attention **within a week** after the graded work is handed back.

Lab Report Grading. Refer to **CRITERIA FOR ASSESSMENT OF LAB REPORTS** and **LAB REPORT FORMAT** documents posted on Blackboard. Lab report rubrics will be provided for each experiment. Each laboratory effort is worth 25 points toward your "experiments" grade. Missed lab quiz is -4 pts. Failure to present the pre-lab completed *before* lab is -4 pts. In experiments that involve synthesis or 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 product will be reflected in the grade for the Lab Report. Refer to the **PRODUCT SUBMISSION GUIDELINES** for details.

Technique Grade (3 pts, part of 25 lab points). This score will be assigned by your TA for each lab (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) 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.

CONSEALED CARRY: All bags, purses, backpacks, etc. are to be stowed in designated areas before laboratory sessions begin. Students who carry a handgun in a purse or backpack (pursuant to state law - K.S.A. 75-7c20) will either have to transfer the handgun to a concealed holster on their body, or transfer the firearm to a secure location, such as a gun safe in their residence or the trunk of their locked vehicle prior to class.

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:

Laboratory experiments	250 pts (10 @ 25 pts. each)
Laboratory examinations	150 pts (60 and 90 pts)
In-Class Quizzes	30 pts (10 @ 3 pts. each)
Online Pre-lab Quizzes	40 pts (10 @ 4 pts. each)
TOTAL	470 pts

Final Letter Grades:

93% - 100% = A
90% - 92% = A-
87% - 89% = B+
83% - 86% = B
80% - 82% = B-
77% - 79% = C+

73% - 76% = C
70% - 72% = C-
67% - 69% = D+
63% - 66% = D
60% - 62% = D-
Below 60% = F

Notes on Grading:

Letter grades will not be assigned to individual laboratory reports, quizzes, or exams. Grades from the lab sections will be normalized at the end of the semester to adjust for differences in TA grading scales.