Course Syllabus: CHMO.236 Organic Chemistry II Lab

Class Time and Location: Monday, 2:00 - 4:50 pm (GOS-2113)

Course Mode: In-Person

Prerequisite(s)/Co- Co-requisite: CHMO.232 Organic Chemistry II

requisite courses:

Instructor Information

Instructor: Name/title: Dr. Douglas Tusch (Dr. T.)

Contact Information: Office Location: (GOS)-3266

Phone: (585) 475-6567 Email: djtsch@rit.edu

Office Hours TBD

Required Text: Christina Goudreau Collison, Jeremy Cody, Jason

Anderson, and Brian Edelbach, REActivities Organic

Chemistry Lab (ISBN: 978-1-59399-642-0)

Objective: This lab course aims to accomplish the following objectives with respect to your chemistry education and experience:

• train you to keep a professional lab notebook

• train you in standard lab safety protocols

• build your confidence in running lab standard organic techniques

• build your confidence in the analysis and assessment of your experimental results

• hone your troubleshooting skills

Experiment Schedule

Week	Week of	REActivities			
		(manual reference, reading assignment)			
1	1/15	Martin Luther King Jr. Day Monday – No labs this week			
2	1/22	Check-in			
3	1/29	Bromination of Cinnamic Acid			
4	2/5	Troubleshooting an Organic Reaction			
5	2/12	Bromination cont./Elimination			
6	2/19	Elimination continued + completed			
7	2/26	TEMPO oxidation			
8	3/4	TEMPO continued (purification)			
9	3/11	Spring Break – No labs this week			
10	3/18	Wittig Reaction			
11	3/25	Electrophilic Aromatic Substitution			
12	4/1	Saponification			
13	4/8	Perkin Condensation (Aldol)			
14	4/15	Make-ups			
15	4/22	check out			
Finals	4/29	No labs this week			

Grading/Evaluation

Graded Item	% of Grade
Lab Safety Certificate	5%
Lab Proofs	95%
Total	100%

Your final letter grade will be assigned based on the following scale:

A : 93-100%	B +: 87-89.9%	C+: 77-79.9%		
A. 93-100%	B : 83-86.9%	C : 73-76.9%	D : 60-69.9%	F : <60%
A -: 90-92.9%	B -: 80-82.9%	C-: 70-72.9%		

Laboratory Safety Certificate (5%): Each student is required to complete the RIT online laboratory safety training module and submit the certificate of completion. Submission of this certificate accounts for 5% of your overall grade in this course, and you will not be allowed to participate in wet-lab experiments until you have submitted this.

Laboratory Notebook Proofs (95%): Each student must have a lab notebook. The notebook may be one with carbonless copy-through pages or a bound composition notebook. Electronic copies of your notebook pages will need to be turned in as lab proof. Lab proofs are weighted equally and account for 95% of the overall grade. All entries must be in ink. Please format your notebook according to the Lab Proof Grading Scheme Below.

NOTE: Everyone must complete their own individual proof for each lab.

Lab Proof Grading Scheme:

(5 pts) Workbook

(1 pt) TITLE OF EXPERIMENT/TECHNIQUE

(1 pt) DATE - mm/dd/yy

(5 pts) REACTION SCHEME

(8 pts) REAGENT TABLE

(10 pts) PROCEDURE/OBSERVASTIONS - Written <u>DESCRIPTIVELY</u> in 3rd person, PAST-TENSE! The procedure should be written up as you do the experiment. Write the procedure in such a way that if your friend needed to do the lab and didn't have their text, he/she could use your procedure and do the experiment with little help from the instructor (think about the FACE demonstration).

(8 pts) DATA - yield, % yield, recovery, % recovery, tables, graphs, color, phase, melting points, R_f values, boiling points, etc.

(8 pts) CONCLUSIONS/ANALYSIS - Guidelines on how to write your conclusions are provided each week. Some good things to think about when doing each experiment are:

(variable) POST-LAB QUESTIONS

Organic Chemistry II Lab Course Policies

Safety Policies:

- <u>Each student must complete RIT's Lab Safety Training.</u> Students will not be able to participate in lab until they do.
- <u>Safety goggles must be worn at all times while in lab.</u> We don't guarantee loaner goggles.
- <u>Lab coats must be worn at all times while in lab.</u> We don't guarantee loaner lab coats.
- <u>No shorts, open toed shoes (flip flops), and exposed mid-rifts are allowed in lab</u>. If you come unprepared, you will not be allowed to do the lab.
- No food or drink in the lab.
- <u>No chemicals are to be poured down the drains</u>. Please follow the chemical disposal instructions outlined in each lab. If you are unsure of how to dispose of something, ASK.
- <u>No Cell phones.</u> Cell phones are a distraction when dealing with chemicals and could result in injury to yourself or those around you.
- Gloves must be worn at all times during an experiment.
- Gloves must be removed before exiting the lab. For example, you should never use door knobs with gloves on or you will contaminate the door knob. Take your gloves off when you leave the room and put on a new pair when you return.
- Tie back long hair. Any long hair or loose clothing must be tied back prior to lab.
- If you wear contact lenses, you are advised to remove them before lab and wear glasses.
- <u>Keep a clean workspace</u> and be sure to clean up before you leave.
- Report all accidents in the lab (spills, burns, cuts, scrapes etc) even if you think they are minor
- Wash your hands before leaving the lab.
- No running or horseplay in the lab.

Lab Due Date Policy: Your final lab proof is due in lab one week after the experiment has been completed. Proofs will NOT be accepted after the due date without a documented excuse. The only exception to this is make-up labs. Completed lab proofs should be uploaded to MyCourses before the next weeks lab period begins.

MyCourses: Lecture notes and recordings will be posted on MyCourses. Supplemental handouts and other materials will be posted on MyCourses. Grading will be recorded on MyCourses for your reference. Please become familiar with MyCourses as I will use it as a primary communication channel with you.

On-Time Attendance Policy: Students are required to attend each lab session. Any lab not completed will have to be made up during the scheduled make-up period; otherwise you will receive a zero for that lab. Any student who misses more than one lab in the semester will receive a zero for any additional labs. Students are expected to arrive on-time in order to complete experiments within the time allotted for lab. Late arrivals will be noted and may be result in loss of points for the lab proof.

RIT's official policy on attendance in part reads:

"Absences, for whatever reason, do not relieve students of their responsibility for fulfilling normal requirements in any course. In particular it is the student's responsibility to make individual arrangements in advance of missing class due to personal obligations such as religious holidays, job interviews, athletic contest, etc., in order that he or she may meet his or her obligations without penalty for missing class." (RIT Governance Policy D4.0, Section I.B)

Office Hours: Office hours are times that I choose to be available to answer questions relating to this course that you do not need to schedule. I will be available at these times in my office (GOS-3266). These hours are available, but by no means the only available hours that I have. If these times don't work for you, please feel free to email me to set up a meeting at a different time.

Internet Connection: For this course, at least some learning materials will be provided in MyCourses and/or other online platforms. By this, your access to a strong internet connection regularly is imperative to your success. Access to a reliable Internet connection is required for this course. A problem with your Internet access may not be used as an excuse for late, missing, or incomplete coursework. If you experience problems with your Internet connection while working on this course, it is your responsibility to find an alternative Internet access point, such as a public library or Wi-Fi ® hotspot.

Course Expectations

Grades: Grades will be posted on myCourses within 2 weeks of artifact submission, unless otherwise noted in the assignment. This is in accordance with the RIT Policy D05.0 Grades which states in part, "Faculty members must provide feedback for all submitted work within two weeks of the submission deadline. Posting grades to RIT's Electronic Course Management System is required. The two-week posting requirement is waived in the case of deadline extensions, late submission of work, any extraneous circumstances, or when explicitly stated in the evaluation criteria." (https://www.rit.edu/academicaffairs/policiesmanual/d050)

Email Response: For this class, I will respond to your email within **24 hours** Monday through Friday. If you do not hear from me in that time frame, please resend your email, as things do get lost. Over the weekend, do not expect an immediate response. Now, it is quite likely that you will receive your response in less than 24 hours, but I do not guarantee it.

RIT Course Policies

Academic Integrity: As an institution of higher learning, RIT expects students to behave honestly and ethically at all times, especially when submitting work for evaluation in conjunction with any course or degree requirement. RIT Online encourages all students to become familiar with the RIT Honor Code and with RIT's Academic Integrity Policy.

Do not cheat. Avoid the appearance of cheating in this class. Do not allow others to cheat from you.

D.08.0 Student Academic Integrity Policy

IV. ACADEMIC INTEGRITY A breach of student academic integrity falls into three basic areas: cheating, duplicate submission and plagiarism.

A. Cheating: Cheating is any form of fraudulent or deceptive academic act, including falsification of data, possessing, providing, or using unapproved materials, sources, or tools for a project, exam, or body of work submitted for faculty evaluation.

- B. Duplicate Submission: Duplicate submission is the submitting of the same or similar work for credit in more than one course without prior approval of the instructors for those same courses.
- C. Plagiarism: Plagiarism is the representation of others' ideas as one's own without giving proper attribution to the original author or authors. Plagiarism occurs when a student copies direct phrases from a text (e.g. books, journals, and internet) and does not provide quotation marks or paraphrases or summarizes those ideas without giving credit to the author or authors. In all cases, if such information is not properly and accurately documented with appropriate credit given, then the student has committed plagiarism.

If you are caught cheating on any assignment or exam, appropriate academic disciplinary action will be taken to the fullest extent allowed by the University. Refer to your "Students Rights and Responsibilities" handbook for further guidance on the Academic Dishonesty policy at RIT. https://www.rit.edu/academicaffairs/policiesmanual/d080.

Academic Accommodations: RIT is committed to providing academic adjustments to students with disabilities. If you would like to request academic adjustments such as testing modifications due to a disability, please contact the Disability Services Office (DSO). Contact information for the DSO and information about how to request adjustments can be found at https://www.rit.edu/disabilityservices/. After you receive academic adjustment approval, it is imperative that you see me during office hours so that we can work out whatever arrangement is necessary.

Starfish: This course participates in the RIT Starfish academic alert system, which is designed to promote student success through communication between students, instructors, and advisors. I will send a whole-class status update to all students before the semester midpoint. When I am concerned about an individual student's academic performance, I may raise an academic alert to notify the student as well as their advisor(s). On the other hand, when a student is doing well, I may send a "kudos" message. If you receive an academic alert email, it is your responsibility to contact me as soon as possible to discuss the issue, its potential impact on your success in the course, and identify people and resources to help you move forward. For more information about the Starfish system, visit http://www.rit.edu/starfish.

Title IX: Title IX violations are taken very seriously at RIT. RIT is committed to investigate complaints of sexual discrimination, sexual harassment, and sexual assault and other sexual misconduct to ensure that appropriate action is taken to stop the behavior, prevent its recurrence, and remedy its effects.

Course Copyright Policy: All course materials students receive or to which students have online access are protected by copyright laws. Students may use course materials and make copies for their own use as needed, but unauthorized distribution and/or uploading of materials without the instructor's express permission is strictly prohibited. RIT Policy C03.2 Copyright Policy addresses this issue (https://www.rit.edu/academicaffairs/policiesmanual/c032). For example, uploading completed labs, homework, or other assignments to any study site constitutes a violation of this policy. Students who engage in the unauthorized distribution of copyrighted materials may be held in violation of the University's Code of Conduct, and/or liable under Federal and State laws.

Continuity of Learning: In the event that there is a disruption in our learning, I will communicate all changes to you as quickly as possible. If a personal interruption removes me from the in-person or online classroom space, you will be informed of this directly via email and on myCourses. In this communication, any changes in the learning structure will be carefully outlined, as will all necessary steps moving forward, for you and for me. Communication is key, and it will be important for you to check your RIT email and myCourses regularly this semester so that you are always "in the know".

In the event that there is a disruption in your ability to learn with us, communication is key. The faster you can communicate these disruptions with me, the easier it is to keep you on a successful path in this course. If your absence from class is due to personal illness, please contact the Disability Services Office (https://www.rit.edu/disabilityservices/) as soon as possible. You may also reach out to your Academic Advisor who can assist you in making all of the necessary contacts with DSO, your instructors, etc.

Counseling and Psychological Services: Many students at RIT face personal challenges or have psychological needs that may interfere with their academic progress, social development, or emotional wellbeing. The university offers a variety of confidential services to help you through difficult times, including individual and group counseling, crisis intervention, consultations, online chats, and mental health screenings. These services are provided by staff who welcome all students and embrace a philosophy respectful of clients' cultural and religious backgrounds, and sensitive to differences in race, ability, gender identity and sexual orientation.

Located on the second floor of the August Center building (above the Student Health Center), Counseling and Psychological Services provides confidential and personalized services to meet the mental health needs of currently enrolled, undergraduate and graduate students on the Henrietta campus. Our mission is to enhance the RIT student potential for learning and success and to promote the emotional health and well-being of the campus community through:

- 1. Providing responsive, empirically-based, and culturally competent mental health services that include:
 - o Short-term individual psychotherapy
 - o Group counseling and psychotherapy
 - Urgent Care crisis intervention
 - Assessment and evaluation
 - Psychiatric services
- 2. Providing graduate clinical training in counseling and psychotherapy and college mental health
- 3. Providing campus-wide consultation and education

Campus Location: 2100 August Center, second floor

Phone: Business Hours: 585-475-226. After Business Hours, Weekends/Holidays: 855-436-1245

Fax: 585-475-6548 Email: caps@rit.edu

NOTE: DO NOT USE E-MAIL IN AN EMERGENCY SITUATION, since you cannot be assured that a counselor will open it at your time of need.

For urgent matters during business hours, contact Counseling and Psychological Services at 585-475-2261. For urgent matters that cannot wait for business hours, call 1-855-436-1245 to speak with a mental health provider or call Public Safety at 585-475-3333.

National Suicide Hotline: 1 800 273-8255 Crisis Text Line: Text **HOME** to 741741 **Changes to the syllabus:** I have provided this syllabus as guide to our course and have made every attempt to provide an accurate overview of the course. However, as instructor, I reserve the right to modify this document during the semester, if necessary, to ensure that we achieve course learning objectives. You will receive advance notice of any changes to the syllabus through myCourses/email.

Changes to the University Calendar: In the event that there is a significant change to the University calendar, this syllabus will be modified to meet those changes, if necessary. Modifications will be shared immediately with our class via myCourses and communications directly from me.

Resources: Everyone in the RIT Community is dedicated to your success. With this, you need to avail yourself of help when you need it! I am, and all of your faculty are, your first stop. What can we do to help you in the course, or with navigating RIT? Your Academic Advisor should be on speed dial! They are an amazing wealth of information for you and can help you with everything professionally, personally, and beyond!

In some cases you already know that you need very specific help. Have trouble with time management, note taking in class, just getting your academic self together? Check out all of the resources the RIT Academic Success Center has to offer! https://www.rit.edu/studentaffairs/asc/ From workshops to individual coaching, they have only your success in mind.

Have a paper that you just can't wrap your head around ... or can't even get started? The University Writing Program is here to help you! https://www.rit.edu/academicaffairs/writing/. Schedule an appointment for a consultation, or peruse all of their online tutorials for writing (https://www.rit.edu/academicaffairs/writing/online-writing-commons-0), just do not let writers block keep you from succeeding! Have a presentation to give 4 weeks from now and you already have stage fright?! Check out the Tips for Developing an Effective Presentation (https://www.rit.edu/studentaffairs/atc/tips-develops-effective-presentation) to get started. Have your presentation together and now you just need to building your presenting courage? Make an appointment with the Expressive Communication Center (https://library.rit.edu/expressive-communication-center), or in their space in Wallace Library (Room 2550) for getting it all together. Hey – and while you are in Wallace Library – your friendly librarian can help you find good resources for that presentation (not just google and Wikipedia!). Each College has a librarian who would love to meet you and talk about what you need to succeed (https://library.rit.edu/staff). These are just come of the places on campus that are ready and willing to help you any time. The RIT Student Life website includes descriptions of all of the departments on campus available to help you (https://www.rit.edu/studentlife/departments). If you still need more resources ... ask me or your Academic Advisor and we will help you pinpoint that resource. Of course asking more than two hours before you need to submit your assignment is always preferred!

Diversity, Inclusion, and Respect: RIT has put forth <u>Policy P05.0 Diversity Statement</u> for all community member. RIT through its policies and practices is responsible for building an inclusive environment where membership in the community allows for faculty, staff and students to reach their fullest potential, both professionally and personally. RIT is committed to the development, administration and interpretation of policies and procedures in a way that is consistent with our commitment to diversity and is in compliance with federal, state and local laws. RIT's policies and procedures are administered in a way that supports fair treatment for all faculty, staff, students, and the RIT community at large.