**CHM 126: Introductory Organic Chemistry Laboratory**
**Fall 2025 Course Syllabus**

**Laboratory Director:** Justin S. Pantano, Ph.D. (he/him/his)

**Laboratory Director Contact Information**

**Email:** jpantano@uri.edu
**Phone:** 401-874-2028
**Office:** Beaupre 117E (accessible through Beaupre 115)
**Student Hours:** general open-door policy, with appointments available through Starfish

**Laboratory Instructors (Graduate Teaching Assistants)**

- Sections 2, 4, & 6: Dom Banor, nbanor@uri.edu
- Sections 1 & 7: Maggie Grady, margaret.grady@uri.edu
- Sections 3, 5, & 9: Mackenzie Pavlik, mackenzie.pavlik@uri.edu
- Sections 8, 10, & 12: Mithuni Senadeera, mithuni.senadeera@uri.edu

**Syllabus Description and Purpose**

This syllabus covers course policies and procedures and what you should expect out of being a participant in this course. By staying in this course, it is assumed you understand and will abide by course policies as stated herein.

**Required Laboratory Materials**

- CHM 126 Laboratory Manual (will be uploaded to Brightspace)
- RAM account and URI ID card, for purchases at the Stockroom (Beaupre 180)
- Safety equipment: safety glasses, knee-length lab coat, nitrile gloves (all can be purchased at the Stockroom), shoes that fully enclose your feet (*NOT* Crocs or similar), clothing that covers your legs down to the ankles†
- A scientific calculator capable of logarithmic and exponential functions (*NOT* a cell phone)
- Access to the course Brightspace site
    - You must take responsibility for carefully studying all materials and following all safety and study instructions.
- Access to a printer, for printing out documents from Brightspace. There are various locations on campus where you can print using your RAM Account, found here.

†Please note that safety equipment purchased off campus must be approved by the Stockroom Manager before use in this course.

**Course Description and Attendance Policy**

CHM 126 is the laboratory course that accompanies the CHM 124 lecture. As such, credit for or concurrent enrollment in CHM 124 is required. You should be aware that the CHM 124 lecture and CHM 126 lab are separate courses and while the lab is intended to complement the lecture by illustrating many of the lecture concepts, it is unlikely that the timing of these concepts will be synchronized with your lecture course. The lab may also include some additional concepts not covered in the lecture.

We recognize that several of you enrolled in the CHM 126 lab have previously completed the CHM 124 lecture in a previous semester or previous academic year. As such, each of the experiments in this course is written as a complete lesson with many supplemental materials available on Brightspace. It is intended that any of you who does a thorough job studying the provided course materials, preparing for each experiment, practicing the required skills, and utilizing the Study Help Resources should be able to succeed in the course.

CHM 126 is a laboratory course, which **requires** hands-on experimentation and direct observation of physical and chemical changes. For this reason, you MUST be present to conduct each experiment. Attendance is **required** for the section you've

registered, and under NO circumstances are you permitted to attend another section. *You must take responsibility for carefully studying all lab materials and following all study and safety instructions.*

The course includes 10 laboratory experiments, and an 11th strictly as a make-up experiment. The course grade is largely based on the successful completion of 9 total experiments. Thus, if you miss two of the first ten experiments (i.e. about 20% of the course material), you are required to complete the 11th make-up experiment at the end of the semester. **The make-up lab is only available to you if you have missed multiple experiments.** Anyone that does not complete 9 experiments should expect to receive a failing grade in this course. In this instance, "complete" means you submitted the Pre-Lab Assignment, actively participated in the experiment, and submitted the Report Sheet. Material from the first ten labs should be reviewed even if they're missed, as the lab practical for this course contains material from all ten in-person labs.

***Please note**: Anyone concurrently enrolled in both CHM 124 and CHM 126 must be aware that if CHM 124 is dropped, you must also drop CHM 126.*

**Departmental Safety Policy**

- You will be required to fill out the electronic laboratory compliance form on your first day of lab. If you do not fill out the form by the end of the first full week of laboratory sessions, you may be dropped from the course at the discretion of the Chemistry Department. Thus, it is imperative to attend the first day of lab and review the department safety policies and procedures more thoroughly.
- You must be wearing your personal protective equipment (PPE: lab coat and safety glasses) before you enter the laboratory. (Nitrile gloves do not need to be donned until you begin working your experiment.)
- You are not permitted to enter a chemistry lab unless you are wearing BOTH a lab coat and safety glasses. These items MUST be worn at all times while you are in a chemistry lab and are not to be removed until AFTER you have safely exited the laboratory.
- Chemistry department personnel are prohibited from loaning safety glasses or lab coats by State of Rhode Island health and hygiene regulations. **If you forget your safety glasses or lab coat, you should not ask to borrow any and must purchase a new pair at full cost from the Stockroom**. If you arrive with inappropriate footwear, you will have to purchase protective booties from the Stockroom.
- If you come to lab without the required PPE, you are NOT permitted to conduct the experiment and will receive a zero for that experiment. NOTHING is more important than the personal safety of the occupants of the lab.
    - Please be advised that wearing long clothing covering your legs is safer than wearing shorts to a chemistry laboratory, and you should consider doing so for this course.
- If you deliberately or carelessly disregard safety instruction (either written or verbal), you can be expelled from the laboratory and receive a zero for the experiment. If you are expelled twice for safety violations, you will automatically receive a failing grade in the course. Careless disregard of safety instruction includes (but is not limited to):
    - Any improper disposal of chemical waste, such as chemicals down the sink or into a garbage can.
    - Not wearing complete PPE, which includes safety glasses, knee-length lab coat, nitrile gloves, closed-toe shoes, and socks.
    - Not completing the Pre-Lab Assignment. This indicates that you have not effectively prepared for your experiment and are unaware of any safety measures that need to be adhered to.
    - Not reviewing the introductory material provided on Brightspace before attending lab.
    - Using a cell phone without permission for any purpose, aside from a laboratory emergency.
        - If you need to use your phone for a personal emergency, you should remove your gloves and step into the hallway.

**Grading Policy**

Grades in CHM 126 are earned by demonstration of mastery/proficiency in the required skills; these include not only organic chemistry laboratory techniques, but also *problem-solving*, *critical thinking*, and the ability to apply organic chemistry concepts to relevant laboratory scenarios (for example, predicting physical and chemical properties from a study of molecular structure). As this is a second-semester laboratory course, the expectations that you can appropriately perform laboratory work in a safe and organized manner are higher than in your pre-requisite course.

Your grade is determined by the quality of your performance on the CHM 126 deliverables (described in further detail below). The grade is **not** open to negotiation and is **not** dictated by what is needed to progress in your chosen program of study. The grade must be **earned** by achieving proficiency in (and ideally, mastery of) the skills identified as essential to ongoing success in your degree program.

The course grade will be calculated as follows:

| | |
|---|---|
| 9 Lab Reports | 900 points |
| Lab Safety Activity | 50 points |
| Lab Practical | 150 points |
| Total | 1100 points |

The best 9 of 11 total lab report grades will be counted in your final grade, as discussed in the above attendance policy. The grades for each report are broken down as follows: 30 points for the Pre-Lab Assignment and 70 points for the Report Sheet.

Please note that the TA assigned to your section will do all the grading for the course. This means you should not compare your graded work to someone else's in a different section. Should there be issues with the grading of work, you should contact your TA immediately. If the issues are not resolved through discussions with the TA, contact the course director. After **one week** has passed since the graded material was returned, there will be **no** grade changes. Please be mindful that all laboratory grades are finalized by the Reading Day(s), so after that point, there are no further opportunities to discuss your graded materials or the grade you have earned in this course.

The percentage shown below guarantees at least the corresponding letter grade:

| Letter Grade | Percent | Letter Grade | Percent |
|---|---|---|---|
| A | 93 | C | 73 |
| A- | 90 | C- | 70 |
| B+ | 87 | D+ | 65 |
| B | 83 | D | 60 |
| B- | 80 | F | 0 |
| C+ | 77 | | |

**Please note that you need a minimum of a C- to move forward to other courses within the Chemistry department that require this course as a pre-requisite.**

**Course Deliverables**

- ***Pre-Lab Assignments***

Each laboratory experiment includes a Pre-Lab Assignment for you to demonstrate that you have thoroughly prepared for experimental work. Pre-Lab worksheets are *required* to be completed prior to your lab section meeting and must be submitted at the beginning of your meeting, or you will not be allowed to participate in the experiment.

- ***Report Sheets***

Each laboratory experiment also includes a Report Sheet. You must print these files from Brightspace prior to your lab meeting, as these files must be used for your experimental work. ***You should not expect copies to be provided in the lab.*** Each Report Sheet has two parts: **1)** A laboratory notebook, where data and observations are recorded while working the experiment, and **2)** A more formal results and conclusions section, complete with post-lab discussion questions. These Report Sheets must be completed in *ink*, and you should have your lab instructor to review your data and observations and sign the notebook pages prior to leaving lab.

The post-lab portion of the Report Sheet is completed after experimentation is done, and after calculations are worked and results are interpreted. This part of the Report Sheet serves as the final, formal presentation of your experimental work. The completed Report Sheet is due at the *NEXT* lab meeting and must be submitted at the *START* of that lab session. **Report Sheets submitted late are subject to a ten-point reduction per day late, so that a Report Sheet submitted a week late will be worth zero points.** If you do not attend the next lab meeting, you must discuss with your laboratory instructor an appropriate and timely way to submit your completed work.

- ***Lab Safety Activity***

During the first laboratory meeting, you will work on a laboratory safety activity after your lab instructor discusses course policies and safety information. Copies of these will be provided in the lab, so you do not need to print this ahead of time.

- ***Lab Practical***

The CHM 126 Lab Practical may consist of experimental work or a written exam that comprises the material that you have covered during the term. The format will be finalized and discussed in greater detail towards the end of the semester.

**Department Billing Policy**

You are responsible for the equipment provided in your assigned drawer. At the beginning and end of every lab meeting, you should thoroughly inspect the contents of your drawer, as the equipment is shared by students in multiple sections. As you'll discuss during the very first laboratory meeting, you should take great measures to ensure all materials make it back to your assigned laboratory drawer, and are not left by the sink, the waste accumulation areas, or in other students' drawers.

**You will be charged for any equipment broken during your lab meeting, as well as any items reported missing or broken by the student who inventories that drawer next. Your TA is not responsible for ensuring your glassware has been returned properly, nor are they responsible for you locking your drawer at the end of class.**

You must also take responsibility for checking the Chemistry Stockroom website (via a link on Brightspace) to determine whether you have an outstanding lab bill. The deadline to pay bills at the stockroom is the close of business of the Reading Day(s). If you have an unpaid stockroom bill at that point, you will have a hold placed on your e-Campus account, which may prevent you from registering for classes, obtaining a transcript, or obtaining a diploma.

If you feel that you have been billed erroneously, you will have **two weeks (14 calendar days)** from the billing date to contest it with the Stockroom. You must send an email to the Stockroom at chm_stockroom@etal.uri.edu stating the following:

- Name and Student ID number
- Course number (CHM 126), section number, and your TA's name
- Room number
- Drawer number
- The reason why you think the billing was erroneous

**Incomplete Policy**

Incomplete grades cannot be assigned except in the case of a real emergency. Any grade of Incomplete must be approved by the department chair and the dean. In order to receive an Incomplete, **your coursework must have been passing,** and you **must have completed at least half of the coursework for the semester**. For this laboratory course, half of the coursework means: completion of the laboratory safety activity and timely completion of five (5) experiments. Anyone receiving a grade of Incomplete must make the necessary arrangements with me to complete the remaining work prior to the following mid-semester, in accordance with the University manual. Should there be no arrangements made by that point, or if the Incomplete is not resolved during the stipulated arrangement, the grade of Incomplete may be replaced with a standard letter grade calculated for you based on the work completed and including zeroes for any work not completed.

**Academic Integrity**

You are expected to be honest in all academic work. Your name on any written work, exam, or quiz is regarded as assurance that the work is the result of your own effort, thought, and study. The university policy on academic integrity is strictly enforced. Any evidence of academic dishonesty, as defined by the policies outlined in the URI Student Handbook, will result in any of the following: a score of zero for the assessment in question, a failing grade in the course, and/or formal notification to the Dean of Students.

The following are some examples of academic dishonesty:

- Using material, directly or paraphrasing, from published or web sources without appropriate citation. This includes using artificial intelligence (AI) generators, such as ChatGPT or similar (see below).
- The posting of class materials on internet sources (such as Chegg.com) to be answered by other individuals for your grade.
- Claiming disproportionate credit for collaborative work.
- Unauthorized possession of or access to exams.
- Unauthorized communication during exams.
- Unauthorized use of another's work or preparing work for other students.
- Taking an exam for another student.
- Altering or attempting to alter grades.
- The use of notes or electronic devices to gain an unauthorized advantage during exams.
- Facilitation or aiding of another's academic dishonesty.

**Academic Integrity specific to CHM 126**

Your Pre-Lab Assignment and Report Sheet MUST be completed on an individual basis. Submitted work that is clearly the same as another student's is a violation of the university's Academic Integrity policies, and you will be held accountable. As such, no portion of your submitted work can be identical (or nearly so) to that of another without proper attribution. If your work is the same (or nearly so) as another source (such as other students' work, provided lab materials, TA explanations, information on the internet, etc.), it will be regarded as plagiarism. Disciplinary action will be taken immediately in regarding to academic dishonesty.

**Use of Artificial Intelligence (AI) in CHM 126**

In this class, it is essential that all submitted work reflects your own understanding and skills. The use of external AI tools such as ChatGPT, Claude, or similar technologies is **not permitted**. This ensures that your submitted work genuinely represents your personal knowledge and capabilities. Any use of AI tools on submitted work in this course will be considered a violation of the university's Academic Requirements in the University Manual (see 8.27.10 - 8.27.22).

**How to Succeed in CHM 126**

- ***Assistance from Prof. Pantano, during student hours or via email***

View Starfish for my most up-to-date schedule. You are always welcome to schedule an appointment with me via Starfish or drop by my office to ask questions. Please make an appointment with me if you wish to discuss your graded work. All email communication (including Brightspace announcements) will be through your URI email, so be sure to regularly check it. Please be aware that I am responsible for three different courses this term, and I receive a substantial number of emails daily. To ensure any of your emails will be seen and answered, please adhere to the following:

- Put the course number (CHM 126) in the subject line.
- Be concise and descriptive in the subject line.
- Make sure that your message is clear. If I can't understand what you may be asking for, I won't answer.

Any emails received after 5pm may not be reviewed until the next business day, and generally addressed within 48 hours. A response may be in the form of a direct email or an announcement on Brightspace.

- ***Chemistry Teaching Assistant Help Office, Beaupre 115***

The Chemistry Help Office is a place where students can gather to study and work problems, either alone or in small groups, and get help on an as-needed basis by Graduate TAs that staff the office regularly throughout the week. The Graduate TAs staffing this office are the TAs that teach these lab courses, so they are the most familiar with specific experiments and expectations. A complete schedule of TA office hours is available via a link on Brightspace.

**Important Fall 2025 Semester Deadlines (**See the Academic Calendar for more details)
Last day of e-Campus open add period: Tuesday, September 9
Last day of e-Campus add with permission number: Tuesday, September 16
Last day for students to drop courses via e-Campus with no transcript designation (W): Wednesday, September 24
Last day for students to drop courses via e-Campus with drop designation (W): Wednesday, October 15
Mid-term progress reports posted in e-Campus for first-year students: Thursday, October 23

**Syllabus Disclaimer**
Note that changes to the laboratory experiment schedule and this course syllabus may need to be made due to weather or other unforeseen circumstances. Should there be a campus closure requiring an altered schedule for any reason, an updated schedule will be posted to the course Brightspace site with a corresponding announcement.

**Required University Syllabus Statements**
The University syllabus statements can be found in full on the University's webpage here, or via the QR code on the right. Some specific details related to our course have been described previously in this syllabus. The rest of the statements include student support services, University acknowledgements and resources, and other related topics.

# Fall 2025 Laboratory Schedule

| Week | Dates | Learning Event | Week | Dates | Learning Event |
|---|---|---|---|---|---|
| **1** | M 9/1 | ***Labor Day – no labs meet*** | **8** | M 10/20 | No labs meet |
| | T 9/2 | ***Advising Day – no labs meet*** | | T 10/21 | ***Lab 7 and Lab 8*** |
| | W 9/3 | CHM Lab Safety and Check-In | | W 10/22 | Lab 7: Esters and Soaps |
| | R 9/4 | CHM Lab Safety and Check-In | | R 10/23 | Lab 7: Esters and Soaps |
| | F 9/5 | CHM Lab Safety and Check-In | | F 10/24 | Lab 7: Esters and Soaps |
| **2** | M 9/8 | No labs meet | **9** | M 10/27 | No labs meet |
| | T 9/9 | ***Safety and Lab 1*** | | T 10/28 | ***Lab 9: Carbohydrates*** |
| | W 9/10 | Lab 1: Structures, Isomers, Naming | | W 10/29 | Lab 8: Nylon Synthesis |
| | R 9/11 | Lab 1: Structures, Isomers, Naming | | R 10/30 | Lab 8: Nylon Synthesis |
| | F 9/12 | Lab 1: Structures, Isomers, Naming | | F 10/31 | Lab 8: Nylon Synthesis |
| **3** | M 9/15 | No labs meet | **10** | M 11/3 | No labs meet |
| | T 9/16 | Lab 2: Thin-Layer Chromatography | | T 11/4 | ***Lab 10: Functional Groups*** |
| | W 9/17 | Lab 2: Thin-Layer Chromatography | | W 11/5 | Lab 9: Carbohydrates |
| | R 9/18 | Lab 2: Thin-Layer Chromatography | | R 11/6 | Lab 9: Carbohydrates |
| | F 9/19 | Lab 2: Thin-Layer Chromatography | | F 11/7 | Lab 9: Carbohydrates |
| **4** | M 9/22 | No labs meet | **11** | M 11/10 | No labs meet |
| | T 9/23 | Lab 3: Distillation | | T 11/11 | ***Veteran's Day – no labs meet*** |
| | W 9/24 | Lab 3: Distillation | | W 11/12 | Lab 10: Functional Groups |
| | R 9/25 | Lab 3: Distillation | | R 11/13 | Lab 10: Functional Groups |
| | F 9/26 | Lab 3: Distillation | | F 11/14 | Lab 10: Functional Groups |
| **5** | M 9/29 | No labs meet | **12** | M 11/17 | No labs meet |
| | T 9/30 | Lab 4: Dehydration of Cyclohexanol | | T 11/18 | **Lab Practical** |
| | W 10/1 | Lab 4: Dehydration of Cyclohexanol | | W 11/19 | **Lab Practical** |
| | R 10/2 | Lab 4: Dehydration of Cyclohexanol | | R 11/20 | **Lab Practical** |
| | F 10/3 | Lab 4: Dehydration of Cyclohexanol | | F 11/21 | **Lab Practical** |
| **6** | M 10/6 | No labs meet | **13** | M 11/24 | No labs meet |
| | T 10/7 | Lab 5: Recrystallization | | T 11/25 | No labs meet |
| | W 10/8 | Lab 5: Recrystallization | | W 11/26 | ***Thanksgiving – no labs meet*** |
| | R 10/9 | Lab 5: Recrystallization | | R 11/27 | ***Thanksgiving – no labs meet*** |
| | F 10/10 | Lab 5: Recrystallization | | F 11/28 | ***Thanksgiving – no labs meet*** |
| **7** | M 10/13 | ***Indigenous Peoples' Day*** | **14** | M 12/1 | No labs meet |
| | T 10/14 | Lab 6: Aspirin Synthesis | | T 12/2 | Make-up and Check-Out |
| | W 10/15 | Lab 6: Aspirin Synthesis | | W 12/3 | Make-up and Check-Out |
| | R 10/16 | Lab 6: Aspirin Synthesis | | R 12/4 | Make-up and Check-Out |
| | F 10/17 | Lab 6: Aspirin Synthesis | | F 12/5 | Make-up and Check-Out |