



## CHEM 3805 LAB SYLLABUS

### Summer 2024

Department Name: Natural Science and Mathematics  
Course Number: CHEM 3805.1  
Course Title: Organic Chemistry Lab I  
Units: 1  
Semester Offered: Summer 2024  
June 17, 2024 – July 9, 2024

#### **Section 1**

Course Meeting Time: **1:00 PM – 5:30 PM**  
Course Meeting Day: Tuesday & Thursday  
Course Meeting Place: DUSC 207  
Prerequisites: At least a C grade in CHEM 2000 & CHEM 2100 and be enrolled in CHEM 3800.

#### **Instructor Information:**

Name: Joe Gerke  
Email Address: [joe.gerke@dominican.edu](mailto:joe.gerke@dominican.edu)  
Office Location: Science Building room 110/112  
Office Hours: By appointment only

#### **1. Course Description and General Objective:**

This laboratory is the companion to CHEM 3800, Organic Chemistry. As such, students will explore the principles learned in the lecture experimentally and will learn basic and advanced laboratory techniques in organic chemistry.

#### **2. General Education or Major Requirements Satisfied by the Course:**

In general, a grade of 'C' (70 – 77%) or better is used as a target for meeting the requirement for course completion. A borderline grade of 'D' (60 – 69%) will generally require fulfillment of additional work as determined by the instructor.

#### **3. Learning Outcomes**

Upon successful completion of the course, each student will have acquired the following:

1. Perform basic laboratory experiments with appropriate techniques.
2. Compute results and draw conclusions from observable and verifiable data.
3. Apply newly gained scientific concepts, principles and techniques in professional scientific settings.
4. The student should be able to prepare a cogent report with objectives for the experiment, underlying theory, clear laboratory procedure, experimental set-up, calculations with relevant equations, explanations for error committed if any, safety issues and conclusions/summary.
5. Texts and Resources:

#### **4 . Library Support**

Students may contact **Nnekay Fitzclarke, MLIS**, Reference & Instruction Librarian, Library Technical Services Offices, 415.257.0195; [nnekay.fitzclarke@dominican.edu](mailto:nnekay.fitzclarke@dominican.edu) for reference materials.

#### **5. Online Components of the Course**

*Online components for the course will be described to you in advance for each experiment.*

Reading materials, Lab notes, Grades, Pre-lab preparation materials, or Lab-procedures (if necessary) will be posted in Moodle. Alternatively, e-mails also will be sent to communicate information relevant to the course. Students are automatically registered on Moodle for both lectures and labs, and they can access Moodle at <http://moodle.dominican.edu>.

## 6. Academic Honesty Honor Code

Students are expected to adhere to the Academic Honesty Honor Code stated in the [Catalog](#).

Dominican University of California is rooted in the Dominican ideals of love of truth, beauty, and the life of the mind combined with the deep respect for the dignity and worth of the individual. All are expected to abide by ethical standards both in their conduct and in their exercise of responsibilities toward other members. Plagiarism is an act of academic dishonesty. Broadly defined, plagiarism is presenting the work of another as one's own.

Students should practice academic integrity and honesty in all its forms, including abstaining from plagiarism, cheating, and other forms of academic misconduct. The University reserves the right to determine in any given instance what action constitutes a violation of academic honesty and integrity.

## 7. Diversity

Diversity will be integrated into the course curriculum in terms of content, pedagogy, and learning outcomes as described in the Diversity Guidelines for Faculty and resources developed by the [Office of Diversity and Equity](#) to assist in the preparation of curricula and syllabi that meet the diversity requirements for academic program reviews and support the University's Diversity Declaration.

## 8. Lab Format and Requirements

1. Each lab session is ~ 2hrs and 40 minutes long.
2. Students MUST be on time as all labs are very tightly planned.
3. All students must have Lab coats and goggles (Goggles are provided when necessary).
4. **Students will work separately, setting up and running experiments alone, maintaining social distance requirements. In certain cases, students will be paired up.**
5. Students will be allowed in the lab only with proper clothing without significant tears and holes: Covered legs & closed-toe shoes.
6. ***All apparatus, glassware, and equipment used must be washed, cleaned, and must be put away in appropriate storage cupboards when requested.***
7. Workbenches and hoods must be cleaned before leaving the lab.
8. All rules for safety must be strictly observed.

## 9. Preparation for successful Laboratory sessions

1. Students are required to come to the lab with an adequate review of the objective, theory, procedure, and equations used for calculating results for the experiment of the day.
2. **Pre-Labs** if any are to be completed and turned in before class begins. Late or missing Pre-Labs will result in lost points. All Pre-Lab questions should be answered if there are any assigned. The objective of the experiment must also be included in a concise manner (2-3 sentences). While the theory may take a bit more explaining (3-5 sentences). See Moodle for example layout of a Pre-lab.

**10. Lab Reports** must be submitted at the next lab meeting. All pages, data, and graphs must be properly stapled. Full name, experiment #, date of experiment, and Lab section must be clearly stated on the top left of the first page. Points may be lost for messy reports and missing information.

The report should be cogent and complete with objectives for the experiment, underlying theory, clear laboratory procedure, experimental set-up, data/results tabulation, calculations with relevant equations, explanations for the error committed if any, safety issues, and conclusions/summary. See Moodle for example layout of a Lab Report.

***11. Delays in the submission of Lab Reports will result in points being lost. Except for valid reasons, each week's delay in report submission will result in the subtraction of 10% of the points.***

12. In general, no more than 2 absences can be accommodated to avail yourself of the consideration described above. Consideration for any more than 2 is exceptional and depends upon circumstances and conditions.

13. The instructor must be informed, preferably well in advance of any anticipated absences. Any additional requests, requirements, and needs also must be communicated well in advance.

#### **14. ABSENCES**

**There are no ways by which a student can make up for a missed experiment due to absence. The only recourse is to thoroughly review and understand the experiment and work with a colleague to share data. IN ANY CASE, 10 POINTS OUT OF 100 WILL BE SUBTRACTED FOR EACH ABSENCE since hands-on work and commensurate learning of techniques are also not attained.**

**NO MORE THAN 2 ABSENCES ARE ALLOWED.**

#### **15. Grading**

*The Lab grade is based on the pre-lab if any, post-lab report, and finals.*

*In group experiments all members should participate equally in running the experiment.*

<b>Assignments:</b>	<b>Percentage of Grade</b>
Pre-Labs	30%
Lab Reports	50%
Attendance and Participation	5%
Final Exam	15%

#### **Course & Assignment Grade Ranges:**

95 – 100%	A
90 – 94%	A-
87 – 89%	B+
84 - 87%	B
80 – 83%	B-
77 – 79%	C+
70 – 77%	C
60 – 69%	D
59 or lower	F

#### **16. Expectations for Student Participation**

1. All students in a group must contribute equally to running the experiments.
2. Any student routinely remaining as a passive observer will be advised to fully engage in lab work.
3. All students are to participate in orientation and Q&A sessions before the start of the experiment.
4. All students are required to arrive on time or before lab because all labs are tightly planned.

#### **17. Students Who Require Accommodations:**

Dominican University of California is committed to equal access for all students in accordance with the Americans with Disabilities Act of 1990. Students who feel they may need accommodations based on the impact of a disability should contact the Office of Accessibility and Disability Services at 415-257-1388 or email [maude.nazaire@dominican.edu](mailto:maude.nazaire@dominican.edu) as soon as possible to discuss specific accommodations. Please submit the subsequent paperwork to the instructor right away.

## **18. Course Evaluations**

The Dominican University of California is committed to an ongoing evaluation of its programs and courses through a culture of constructive dialogue and feedback. It is expected that students will complete the course evaluation either in class or outside of class. The instructor will determine the time for the course evaluation to be completed. A link to the course evaluation will be sent to all students enrolled in a class by IT Department. It may be completed on a laptop, tablet, or mobile device. A laptop can be checked out from the library if needed.

## **19. Title IX**

As instructors, one of our responsibilities is to help create a safe learning environment for our students and for the campus as a whole. As part of our commitment to students' wellbeing, we have the responsibility to report any instances of sexual harassment, sexual violence, relationship violence, or stalking to our Title IX Coordinator, Jennifer Hute, so she can inform students about their reporting options and the various support resources available. Student privacy is a priority for us and will be maintained to the extent permissible by law and policy. For more information about your rights and reporting options, including confidential and anonymous reporting, please visit [dominican.edu/titleix](https://dominican.edu/titleix).

**20. Disclaimer:** This syllabus is subject to modification. The instructor will inform students of any changes.

## **21. Safety Test online in Moodle**

All students must take one of the 3 safety test versions by the third week of the semester. Taking the test will be applicable to all the courses you are registered for, in the full academic year. You can access the test site through the following link: <https://moodle.dominican.edu/course/view.php?id=14444> Password: Welcome2Fall

# CHEM 3805 Course Schedule

Date	Expt. #	Title	Room No.
6/18	Expt 1	Review: Safety policies, Lab syllabus, expectations. Orientation on where laboratory glassware and apparatus are.  Molecular modeling and Stereochemistry	207
6/20	Expt 2	Technique of refluxing – (And presentation on Organic solvents)	207
6/25	Expt 3	Filtration techniques	207
6/27	Expt 4	Techniques of Crystallization	207
7/2	Expt 5	Essential oil – Steam Distillation of spices	207
7/9	Expt 6	IR spectroscopy theory, applications, techniques	207