

## CH 101: General Chemistry 1 Laboratory Syllabus, Fall 2021

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### INSTRUCTORS

Lab Coordinator Dr. Nolan Miller Shepherd  
SCI 270

### MEETING TIMES

For the lectures and laboratory sessions, check which section you are enrolled in - P1, P2, or P3 determines when your lecture time is, and L\_ or M\_ determines when your lab section meets. All meetings will be held in-person. Laboratory lectures will begin the week of Monday, 6 September. Lab sessions will begin the week of Monday, 13 September.

Lab Lecture	W 12:20 PM - 1:10 PM	SCI 109 (Section P1)
	R 11:15 AM - 12:05 PM	MOR 101 (Section P2)
	F 12:20 PM - 1:10 PM	MOR 101 (Section P3)
Lab Sessions	See your section	SCI 268A-D

The entrances to the labs have room numbers different from the lab spaces themselves - SCI 268A is numbered SCI 268, SCI 268B is numbered 266, SCI 268C is numbered 265, and SCI 268D is accessed through SCI 262 or SCI 265. All lab spaces and the stockroom are interconnected by a hallway. Lockers are available for your storing your belongings during lab in SCI 266 and SCI 268.

Office hours for all instructors are held in SCI 103A, across the hall from the SCI 109 lecture hall. The schedule for office hours is available here: <http://genchem.bu.edu/ch101-fall-2021/schedule.html#office>

### COURSE WEB PAGE AND COMMUNICATIONS

All assignments and other course documents for the labs will be posted electronically on the course web page on Blackboard: <https://learn.bu.edu>. Announcements will be posted on Piazza and/or sent by email.

All course questions are answered on the Piazza online discussion forum. Sign up for Piazza at <http://piazza.com/bu/fall2021/casch101>.

If you have questions of a personal or private nature, send them to [ch101-questions@bu.edu](mailto:ch101-questions@bu.edu). We ask that you please do not email course staff individually.

### COURSE MATERIALS

Note: there are no additional materials required those posted on the main course syllabus, the following is just to reiterate those materials that are necessary specifically for labs.

1. (Required) Laboratory notebook, Hayden McNeil Publishing. May be required and reused in future chemistry courses.
2. (Required) Approved safety goggles, item 9301 at the bookstore. **Massachusetts State Law requires that all students wear approved personal protective equipment at all times in all labs. Contact lenses are forbidden in chemistry labs.** Additional

details about lab safety and protection will be provided in lab. May be required and reused in future chemistry courses.

3. (Required) Laboratory coat. May be required and reused in future chemistry courses.
4. (Optional, Recommended) A lock to secure your belongings in the locker when in the laboratory. The laboratory instructors, staff, and teaching fellows are not responsible for unsecured personal items.

## GRADING

Laboratory assignments and participation will account for 20% of your total grade in the class: 15% for the assignments, and 5% for participation.

The assignments will consist of pre-lab problems and post-lab reports/papers. The pre-lab assignments will be written in your lab notebook and due to your TF at the beginning of the lab session by handing them the copy pages (not the originals!) from your lab notebook. The pre-labs are required to demonstrate preparedness for the lab and will be included as part of your grade for the post-lab assignment.

The post-lab assignments will be due one week after the lab session in which they are assigned, two hours before the beginning of the scheduled time for the next session. Post-lab assignments will be submitted on the course's Blackboard site ([learn.bu.edu](http://learn.bu.edu)) as a PDF file using the Turnitin feature. More instructions on submitting your post-lab assignment will be provided in the lab procedures. Late post-lab assignments will have 25% of the total score for the assignment deducted per day beyond the due date and time, and post-lab assignments beyond 2 days late, including weekend days, will not be accepted.

Missing a laboratory session will count as a 0 for that post-lab assignment. The lowest post-lab assignment score (including a 0 from a missing lab) will be dropped. If, due to unusual circumstances, such as a documented prolonged illness, you miss more than one lab, please contact Dr. Shepherd as soon as possible so that special arrangements can be made to catch up with your work.

The participation grade will represent attendance, preparation, engagement, cleanliness, and safety in the lab sessions, as well as answering pre-lab lecture clicker questions. Merely attending the lab sessions is not sufficient to receive a full participation score. You are responsible for completing the pre-lab assignment, reading through the procedure and safety information, and bringing proper attire for the lab. Unsafe behavior or leaving your lab station messy will lower your participation grade. Your TF will have further details on safety and maintaining an orderly lab space.

## STRUCTURE AND EXPECTATIONS FOR LAB LECTURES AND SESSIONS

Attendance in the pre-lab lectures is required. These class sessions will supplement the main lectures by focusing on how course content applies to the laboratory experiments, the techniques used in the lab, and skills related to performing research in the natural sciences. In general, the pre-lab lectures will discuss the lab for the following week. You must read any materials posted on Blackboard for the lab before coming to class.

Entering the lab sessions with the proper mindset is key to learning from them. Plan to arrive early with your notebook containing the completed pre-lab assignment and enough space for collecting data/observations, your personal protective equipment (PPE), and appropriate clothing as described below. Remember that the experiments are designed as a group activity - work as a team with your partner or group, discuss content beyond just the procedure with other students in the room, and don't hesitate ask your TF questions. Don't focus on getting the "right answer" or

perfect results from the experiment, being able to discuss why you got the results you did is more important, and this will be reflected in how the post-lab assignments are graded. If the scheduled time for the lab isn't over when you complete a procedure, don't just leave after you finish cleaning up your space. Take a few minutes to discuss your results or any lingering questions with other groups and your TF.

The following attire is required for the lab sessions:

- Safety goggles
- Glasses if you require them; contact lenses are not allowed
- Lab coat
- Sleeves that cover your arms to the wrist
- Pants that cover your legs all the way to your shoes
- Close-toed shoes that cover the tops of your feet
- Hair shoulder-length and longer tied back

As a general rule, in your full lab attire and PPE, no skin should be visible below your neck. It is more important to stay safe in the lab than to look stylish!

The TFs will refuse your entry to the lab if you are not adequately prepared with proper attire and your notebook with the pre-lab assignment completed. Being unprepared is both unsafe for you and your peers!

## **ACADEMIC HONESTY**

You are encouraged to discuss lab assignments with other students, but you should prepare your submitted work yourself. All students at Boston University are expected to maintain high standards of academic honesty and integrity. It is the responsibility of every student to be aware of the Academic Conduct Code's contents and to abide by its provisions, as detailed at:

<http://www.bu.edu/academics/resources/academic-conduct-code/>

Please note carefully that the University and its Faculty treat cheating with zero tolerance. Here, "cheating" refers to any violation of the academic conduct code. There are no small infractions. All instances of misconduct will be reported to the Dean's office. It is the responsibility of every student to be aware of the Academic Conduct Code's contents and to abide by its provisions.

Also note specifically that sharing your lab assignments to another person, either a peer in the course or by posting online in any form, is a violation of the academic conduct code. Never send your lab assignments or analysis to another student. While we encourage discussing the labs with your fellow students, do not share the written work itself.

## **DISABILITY STATEMENT**

The Office of Disability and Access Services (25 Buick Street, Suite 300) is responsible for assisting students with disabilities. If you have a disability, you are strongly encouraged to register with this office. Lecture hall and discussion rooms are accessible and ADA compliant.

Learning and testing accommodation: Boston University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. If you are a student who needs academic accommodations because of a documented disability, you must present your letter of accommodation from the Office of Disability and Access Services directly to Dr. Shepherd as soon as possible. If you have questions about documenting a disability or requesting academic accommodations, contact the Office of Disability and Access Services. Letters of accommodations should be presented as soon

as possible to ensure that student needs are addressed from the start of the course. Instructors are not able to provide accommodations without documentation from Boston University's Office of Disability and Access Services.

### LABORATORY SCHEDULE

Week	Dates	Lab	Description
1	30 Aug - 03 Sep	N/A	No Labs
2	06 Sep - 10 Sep	N/A	Start of Pre-lab Lectures
3	13 Sep - 17 Sep	1:	Density
4	20 Sep - 24 Sep	2:	Mass Spectroscopy
5	27 Sep - 01 Oct	3:	Atomic Emission Spectra
6	04 Oct - 08 Oct	4:	Beer's Law
7	11 Oct - 15 Oct	N/A	No Labs
8	18 Oct - 22 Oct	5:	Molecular Models and Lewis Structures
9	25 Oct - 29 Oct	6:	Representative Chemistry of the Periodic Table
10	01 Nov - 05 Nov	7:	Synthesis and Characterization of Alum, part 1
11	08 Nov - 12 Nov	7:	Synthesis and Characterization of Alum, part 2
12	15 Nov - 19 Nov	8:	Oxygen Content in Air
13	22 Nov - 26 Nov	N/A	No Labs
14	29 Nov - 03 Dec	9:	Thermochemistry and Calorimetry
15	06 Dec - 10 Dec	N/A	No Labs