

Appendix B TA EXPECTATIONS

Welcome to teaching General Chemistry laboratory! With the new guided inquiry approach to lab, your role as the TA has become even more important, and we appreciate all of the hard work you will be putting into working with your students. The purpose of this document is to outline the responsibilities and expectations of being a TA for General Chemistry lab. Please read everything carefully.

TA meetings

During the semester TAs will be required to attend a weekly TA meeting. Attendance at every meeting is mandatory. You will be responsible for reading over the TA notes and rubrics from online for the following week's experiment. All TAs will be performing the labs.

Each TA will also sign up to lead a discussion on content associated with a particular project. When you lead the discussion it is your responsibility to be an expert on the content, and we encourage you to attend General Chemistry lecture (if possible), read the lecture textbook, and any other relevant information. Details will be discussed in the TA training.

Agenda:

- completing Project 3 and Project 4
- discussion of grading issues
- discussion of any other issues that arise
- TA-led content discussions

Laboratory

For any day you are in lab, you should keep in mind that you are a model of appropriate attire for the students (closed toe shoes, long sleeves, lab coat, long pants, safety goggles, hair tied back). You are also responsible for the safety of your students during lab. **Please arrive 30 minutes prior to your assigned lab period every week.** Check in for any last minute changes, etc., and bring your lab notebook and laptop with the TA notes. Post experiment notes on the monitors for students to reference during lab. Please do not grade or complete other work during lab. Emailing and texting are not allowed for TAs during lab periods.

Each project can be separated into three categories; planning, experimenting, and presenting. In the guided inquiry approach, your role as facilitator is essential, and we encourage you to interact with students. Please reference the "Discourse" documents discussed during the TA meeting for further details on how to interact with students during planning and experimenting. Summarized below are the primary activities for which you are responsible during each component of the project

Planning:

- use discourse to help facilitate student discussions of the planning questions and development of a procedure
- encourage students to use resources/videos online and do online research to answer planning questions
- talk with the "Communicator" of each team (or read student plan) to ensure students have a detailed plan for the following experimental day
- only allow students to leave lab if plan is detailed enough (i.e. students must have approximate masses/volumes of reagents listed, as well as steps they will perform for the experiment)
- your job is **not** to check for the correct answer – students may leave lab with a non-viable plan (as long as they aren't wasting chemicals)
- **The "Record Keeper" for each group turns in one plan at the end of the planning period** (all students sign the pledge, and you sign off)

Experimenting:

- provide feedback to students on lab technique

- ensure students are being safe in lab [The General Chemistry Teaching Assistant's Guide contains specific information regarding the safety equipment and emergency procedures for the general chemistry labs. *Should a student be injured, it is important that one TA stays with the student in the lab room while the other TA notifies the stockroom.*]
- engage in discourse to help students modify their experimental procedures as needed
- encourage students to run multiple trials, take detailed notes of their experiment, and make sure their data makes sense
- students email TA and lab members data (not to be checked by you unless needed, see grading responsibilities below)
- students will plan for the following day after an experiment, so keep students on track in terms of time
- **After completing the experimental day, sign the bottom of each student's experimental section**
- **The "Record Keeper" for each team turns in one summary of their experiment**
- Before leaving lab, check to make sure all waste containers are closed, gas and water are off, lab benches are clean, etc.

Presenting:

- each team emails their presentation to the TA 24 hours before lab
- have student presentations loaded onto your laptop (or lab desktop) and ready prior to lab
- keep time of presentations to ensure all students present
- facilitate student questions following presentations by calling on students (only let students ask more than one question if all students have asked a question)
- grade presentations and questions (see grading details below)
- allow time for planning for the next project
- **Each student turns in a hard copy of their lab report at the beginning of the next lab day**
- **Each student completes an online peer evaluation by the beginning of the next lab day**

Absences:

If you have an emergency and cannot attend lab you are responsible for finding someone to switch with you. TA emails and availabilities (based on what people indicated at the beginning of the semester) are posted. Contact these first before sending an email to the entire group.

Office Hours

The goal of office hours is to facilitate conceptual understanding of chemical concepts, aid students in the analysis of data, and provide feedback for writing a laboratory report. We encourage you to use the TA notes, information from the TA meetings, Chemistry lecture textbook, and resources on the TA website site to help guide students to the answer through questioning. Please **do not give students the answer directly** or confirm correct (or incorrect answers). Please be prompt to your office hours and plan to stay the entire hour. Office hours can be attended by any student regardless of their section.

Absences:

You are responsible for finding someone to switch with if you have a conflict. TA emails and availabilities (based on what people indicated at the beginning of the semester) are posted. We ask students to notify us if a TA does not show up for office hours.

Grading

There are a variety of assignments students will complete both individually and as a group through the course of the semester. It is your responsibility to grade the assignments in a timely fashion and record grades in an Excel spreadsheet and on the TA website (directions will be given on how to do this during the TA meeting). Since there are more than 1300 students enrolled we need to be consistent across sections when grading. Therefore there is an associated rubric on the TA website for each

assignment. Please see the table below detailing the assignments for the course. The syllabus for the course provides the specific due date for each assignment.

Assignment	Details	When due?	Team/Individual?
Video Quizzes	associated with lab lecture videos and resource documents	printed out and handed in at the beginning of lab	Individual
Experimental Plan	written in lab notebook by record keeper	at the end of lab once planning is complete	Team
Experimental Summary		at the end of completing an experiment	Team
Presentation	group overview of their project	powerpoint/prezi/etc due 24hrs before lab presentation day	Team
Presentation question	student question following other group presentations	N/A	Individual
Lab Report	written report of project	at the beginning of lab 1 week following presentation	Individual
Lab notebook pages	detailed documentation of project	copy pages attached to lab report	Individual
Peer evaluation	student evaluation of other group members	before handing in lab report for the same project	Individual

Returning graded work: You are to upload grades, add them to your Excel spreadsheet, and pass back graded work the lab period following that in which the assignment is collected. We will be checking the student grades weekly and asking for your excel sheet periodically. **Lab reports can be returned to students two weeks after they are collected.** See the “TA Calendar” for details on dates for deadlines. If you find you are getting behind on grading, PLEASE notify us immediately.