

Chem 1AL, Fall 2019

<i>Instructor:</i>	Dr. Michelle Douskey 307 Latimer Hall Office Hours: Mondays 2-3 PM and Friday 3-4 PM douskey@berkeley.edu
<i>Lab Lecture:</i>	Monday 4-5 PM, Wednesday 4-5 PM or Friday 2-3 PM (live and will also be webcast) In Pimentel Hall (attend <u>one</u> per week)
<i>Enrollment Questions:</i>	Natalie Johnson 330 Latimer Hall njohnson614@berkeley.edu
<i>Head GSI:</i>	Vanha Pham GenChemLab19@gmail.com Please place '[CHEM1AL]' in the beginning of the subject line. Office Hours: Tuesdays 9:30–11:30 AM Weekly reviews, Thursdays from 7–9 PM in 100 Lewis
<i>iClicker inquiries:</i>	Email Head GSI (GenChemLab19@gmail.com)
<i>Required Materials:</i>	<ul style="list-style-type: none">• Chem 1AL Lab Manual Fall 2019, ISBN 978-1-5339-1417-0 (includes the <u>required</u> access code to online prelabs)• Lab Notebook with carbonless copies, ISBN 9780738092652, or equivalent• TI-30X IIS Calculator (or equivalent simple non-graphing calculator)• iClicker (original) or iClicker+ or iClicker 2
<i>Course Website</i>	Chem 1AL-LAB-Douskey-F19 at bcourses.berkeley.edu

EXPECTATIONS: Your key goal in this laboratory course is to develop an understanding of the experimental nature of chemistry. We will also be introducing concepts of green chemistry, the practice of sustainability in chemistry.

BCOURSES: All announcements, grades and resources for the course will be posted on the course website. You should set up your preferences to receive emails about course updates or check the site regularly.

PRELAB ASSIGNMENTS: Prior to coming to lab you must complete all the assigned prelab questions online. In some instances, you will be asked to write important information and thoughts in your lab notebook. **If you have not completed the prelab at least 30 minutes prior to your section, you will not be allowed to do the experiment.** To allow time for students to get their course materials, the prelab assignment for the first lab experiment is available optional. There will also be a required introductory quiz to help you become familiar with course policies.

LAB LECTURE: There will be a lab lecture that precedes every experiment. Lab lectures are offered three times a week. You can attend the lab lecture for which you are enrolled or another one, as needed, with no changes in enrollment required. Use the lab calendar posted on the course website and the manual to guide you about which lab lectures happen on which day. The lab lecture will consist of lecture, demonstrations of techniques, and iClicker questions. Your participation in iClicker questions during class will contribute to your grade.

LABORATORY SECTION TIMELINE: Attendance in section is mandatory. The period lasts for 3 hours. The first few minutes will be a short prelab lecture by your graduate student instructor (GSI). The rest of the time will be devoted to performing the experiment and starting to complete your lab report if time allows.

LAB EXAM: On Friday, December 6, there will be a written lab exam from 7–9 PM. The exam will cover relevant chemistry concepts and calculations related to the experiments.

LAB REPORTS: For all the lab experiments only an informal report is required. Lab reports are due the next time you have lab section. In many cases reports are due the following week, but occasionally there are holidays and you will get more time. Your reports need to be submitted in two ways: Gradescope and in person. You will upload the reports to Gradescope at least 30 minutes prior to your lab section as well as turn in the written copy to your GSI when you enter lab. No late informal reports will be accepted. Your lowest lab report score for the informal lab reports will be dropped.

Below is a summary of the various assignments for the laboratory.

Lab Summary	Percent of total	
Daily lab performance points	2%	←11 labs, lowest dropped
Weekly Prelabs online	3%	←11 prelabs, lowest dropped
iClicker	5%	←10 sessions counted, lowest dropped
Informal Reports	60%	←12 informal lab reports, lowest dropped
Lab Exam (Dec. 6)	30%	
Lab total	100%	

Detailed point breakdown for each laboratory assignment.

Assignment	Total
Lab 1 (Airbags)	18
Lab 2 (Smells)	18
Lab 3 (Polymers A – Crosslinking)	18
Lab 4 (Polymers B – Toy design)	18
Lab 5 (Biofuels A – Ecotoxicity and synthesis)	18
Lab 6 (Biofuels B – Isolation)	18
Lab 7 (Biofuels C – Calorimetry)	18
Lab 8 (Biofuels D – Argumentation Exercise)	18
Lab 9 (Acids in Env A– Gases)	18
Lab 10 (Acids in Env B – Molarity)	18
Lab 11 (Acids in Env C – Titration)	18
Lab 12 (Extraction of Dye)	18

OVERALL GRADE FOR THE COURSE:

In order to earn points for any given experiment, the following conditions must be met:

- You must attend lab.
- Prior to attending any given laboratory period, you must have completed all of the reading assignments, attended the lab lecture, and completed the online prelab 30 minutes prior to the start of your section.

- Guidelines for what to put in the lab notebook are in the lab manual. You must prepare your notebook with a flowchart of the procedure prior to coming to lab. Also list the goal and purpose of each experiment.
- You must **arrive to lab on time**, which means no later than 8:10 AM for morning labs, 1:10 PM for afternoon labs, and 6:10 PM for evening labs. In general, the first 5-10 minutes of every laboratory period are dedicated to a safety discussion, which is an important part of the experiment. Therefore, if you show up late you will not be allowed to participate in lab for that day.
- You need to wear long pants and closed-toe shoes to lab.
- You must wear a lab coat and safety goggles during the laboratory period. Both are provided in the lab room. Your whole body should be covered, leaving only your face and hands uncovered. **Your GSI will ask you to leave** the lab for the day if you are not wearing such clothing or safety goggles.
- You must record detailed **observations** about the experiment in your lab notebook. Do not just make a checklist of what you are supposed to do and then check off the procedures as you carry them out without making observations as to what actually happened. All observations must be written in your notebook during, not after, the laboratory period.
- You must record all expected data during, not after, the laboratory period. This includes mass of things weighed, volume dispensed, yields, etc.
- Before leaving lab, you must meet with your GSI who will ask you to confirm that certain data is present in your notebook. Upon confirmation, the GSI will initial the notebook. At this point, you are to provide them with the perforated pages of your notebook that were used in lab that day.
- Lab reports must be scanned and submitted as a pdf online to Gradescope.
- You must turn in a paper copy of your completed lab report at the beginning of the lab period it is due (the next lab period after the experiment was completed). Late lab reports for informal reports will not be accepted.
- Any questions you have regarding a lab report grade must be resolved with your GSI within one week of having received the graded lab report. All regrades are subject to final approval by the course instructor.

If you do not complete all of the above conditions for any given lab, you will earn a 0 for that experiment. The consequences of a 0 are as follows:

- If you receive one zero during the semester, this will be your dropped lab score.
- If you receive two zeros during the semester, you not only will lose the points associated with those experiments, but your course grade will also be dropped by one third of a grade. For example, if you earn enough points to earn a B+ in the class, but you have two zero's, you will receive a B.
- If you receive three zeros you will receive a failing grade in the course.

Your final grade for the course will be determined by your participation credit, lab reports scores and your lab exam.

Grade	Range
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	<60%

ATTENDANCE POLICY LABORATORY

- Students must attend every lab session and complete every lab report. **The first absence for any reason will count as the dropped lowest lab score.**

- If for some reason there is a second absence, please contact us so you may be rescheduled to another section the same week that experiment is offered. Check the lab calendar for details. Email the Head GSI at GenChemLab19@gmail.com. Please include the following information:
 - Your name
 - Your GSI's name
 - Normal lab time
 - Date of absence
 - Preferred time to make up lab
 - Subject line: "make-up lab"
- If you cannot make up lab, excused absences are possible for documented illness, or emergency only. Otherwise the absence is unexcused and will result in a zero.
- If a student with an excused absence is unable to make up the lab, make-up points will be assigned based on the average from other labs. No make-up points are possible for unexcused absences.

HELPFUL RESOURCES

- Weekly review sessions will be conducted by the head GSI on Thursdays from 7–9 PM in 100 Lewis.
- The campus Student Learning Center has assistance for Chem 1A students. <http://slc.berkeley.edu>
- The Chem 1AL GSIs will staff open office hours for about 20 hours each week. Look for a posted schedule on bCourses with specific times and locations.

We strongly recommend that you enroll in a study group run by the Student Learning Center.

University Policy on Academic Honesty:

The honor code for UC-Berkeley states,

"As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others."

Incidences of cheating will be taken seriously and paperwork will be filed with the Office of Student Conduct. Resist the temptation to copy answers from other students or solutions you find online. When you collaborate, discuss thoroughly until you understand, then write brief notes. Do the bulk of your writing by yourself.

Note that 'plagiarized paper' also refers to lab reports in the context of Chem 1AL, so cheating on any lab report can result in an F for the course.

iCLICKER TRANSMITTERS AND IN-CLASS CREDIT

I will be using the iClicker student response system in class this term. iClicker helps me to understand what you know and gives everyone a chance to participate in class. I will use iClicker to keep track of attendance; please see the attendance policy on page 3-4 of the syllabus. Participation with iClicker will account for 5% of your final grade. I will drop the lowest scores to account for times you forget to bring your clicker to class.

You may purchase one of the following models:

The original i>Clicker, iClicker classic

i>Clicker +

i>Clicker 2

The mobile application, i>clicker GO or REEF polling will not be allowed

How to register:

To receive credit for the responses you submit with iClicker, you must register by September 9th on bCourses. Students who register after this time will not receive credit.

Register your clicker within bCourses only

You must register your clicker within our bCourses site. Do not register your clicker on iclicker.com: if you do, our staff will not be able to match your responses with your name and you will not receive credit.

Tips for iClicker troubleshooting

Campus provides a list of solutions to iClicker problems at this website, https://berkeley.service-now.com/kb_view.do?sysparm_article=KB0010763

Academic Dishonesty and iClickers

Voting in multiple lectures during a given lab week will be treated as academic dishonesty. Responding for another student will be treated as academic dishonesty. Any student caught with multiple iClickers in hand responding for another student will lose iClicker credit for the course, the iClickers will be confiscated, and the case will be referred to the Dean of Students for possible further action as described in the Berkeley Code of Student Conduct.

PLEASE NOTE:

- 1) This course credit for iClicker quizzes is offered to encourage class participation and discussion of relevant topics. Discussing your thoughts is a key part of learning.
 - 2) This credit will appear, as soon as the data is processed, in a separate column in your online grade book.
 - 3) You are responsible for providing a functional transmitter. We are not responsible for dead batteries or transmitters that randomly (and unfortunately) fail to function.
 - 4) If you suspect your iClicker is not working, immediately contact the staff through the GenChemLab19@gmail.com. Our staff will arrange a time with you to test your device.
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Email Etiquette:

- You are expected to write as you would in any professional correspondence. Email communication should be courteous and respectful in manner and tone. Do not send emails that are curt or demanding.
- Your GSI should be your first point of contact if you have questions, comments, etc. If your GSI can't help you, he/she will contact the instructor on your behalf or you may contact the instructor directly.
- You *must* use your berkeley.edu address; emails from other domains will not be read.
- Do not expect an immediate response via email (normally, a response will be sent within one business day). If your email question is sent at the last minute it will not be possible to send you a response before an assignment is due or a test is given.
- Do not post personal information about yourself or others about third parties to bCourses.

Participation:

- Keep on the topic at hand. If you have questions off the current topic, address these outside of class at office hours or by email with the GSI or instructor.
- Do not talk out of turn. Wait to be recognized before speaking and do not try to dominate a discussion with your questions or comments – give others a fair opportunity to participate.

Common Courtesy:

- If you bring a laptop to class, stay focused on taking notes. Browsing the web, playing games, checking Facebook, etc. are extremely distracting to other students.
- Food and drink are discouraged in class. There may be times that you need a beverage or small snack during class. Avoid bringing in large meals or food that is noisy when unpackaged or chewed.
- Show respect for the staff and fellow classmates. Do not interrupt another who is speaking. It is okay to disagree with an idea but not okay to ridicule or make fun of another person and his/her ideas. Raised voices, derogatory language, name-calling, and intimidating behavior will not be tolerated.
- Do not disturb others by engaging in disruptive behavior. Disruption interferes with the learning environment and impairs the ability of others to focus, participate, and engage.