

CHEM 1240
GENERAL CHEMISTRY I LABORATORY
Summer, 2021

I fully recognize it is difficult to teach laboratory techniques on a computer. The things we will do this quarter are by no means a substitute for actual hands-on chemistry. What we will attempt to do is provide an environment where you are free to make decisions and observations that are similar to what you might experience in an actual laboratory setting. More emphasis will be placed on developing the skills to make these observations as well as analyzing and interpreting data. We will also learn to better interleave the theoretical and conceptual aspects of chemistry with its experimental side.

Zoom Room	Time	T.A.	Email
https://udenver.zoom.us/my/tylerball	2:00 – 3:00 pm	Tyler Ball	Tyler.Ball@du.edu

Laboratory Manual – Available on the CHEM 1240 CANVAS website.

Lab Notebook – It is a good idea to record all observations, data, and calculations in a notebook just as you would if you were attending an actual lab. You will be supplied representative data at times during the quarter. This data will be uploaded on to Canvas and will be easily accessible.

EXPERIMENT SCHEDULE (subject to change with appropriate notice)

Week	DAY	EXPERIMENT
1	Tuesday	Lighting the way to atomic structure
1	Wednesday	Periodic Trends and Electron Configuration
1	Thursday	Molecular Geometry and Bonding
2	Tuesday	What's in a name...a look at chemical formulas
2	Wednesday	Using stoichiometry for quantitative analysis of an unknown
2	Thursday	Chemistry in water (reactions of copper)
3	Tuesday	On the lighter side of chemistry...gases (Full Lab Report)
3	Wednesday	Enthalpy of Reaction

Computers - You will be using your laptop in the laboratory ☺ or you could say your laptop is the laboratory.

Safety Rules ☺

- Always let your wrists rest on the desk in a neutral position. Use a comfortable pad to avoid flexing or extending your wrist for too long. Keep your shoulders and back relaxed. But, do not slouch. Carpal tunnel syndrome can be a debilitating condition that prevents you from gripping your smartphone.
- Use proper lighting and minimize glare to prevent eye strain. If working in a room with fluorescent lights consider using a desk lamp instead or wear blue light blocking glasses.

Adopted from Dr. Wells (Summer2020)

- Viruses, malware and other malicious software can wreak destruction and gain access to your sensitive information. But do not spray your computer with a 10% bleach solution...Internet security programs must be used at all times.
- Fashion changes faster than safety guidelines can be rewritten. Think...clothing!! When using Zoom, you are beaming video of yourself out for all the world to see.
- Perform and preserve backups of your computer files. Disasters do happen with computers! Like when you spill an Arnold Palmer on your laptop.

Working together – I encourage you to collaborate with your classmates. Maybe now more than ever we will need to reach out for help. We may not be able to get together in one of the Olin labs or over in the SEC, but we can still help each other. Use Zoom or some other video conferencing platform. Worst-case scenario take a picture of what you are working on and email or text it to a friend. I helped my niece understand algebra using text messages

If you miss a lab – We are going to try and maintain some degree of normalcy. There is a lab scheduled for each week. The report sheet will be due the following week, just like we have done it the last two quarters. I realize you are not actually coming to lab each week, but I am also aware that illness and other life events can keep you from completing the work on time. It is your responsibility to contact me or your TA to make us aware that you need extra time. We will do our best to accommodate you.

Deadlines - It is important that you complete your report sheets while information is fresh in your mind. They are due during the week following when the lab itself is scheduled. The GTA's will grade and return your assignments at least 24 hours before your next one is due. This will give you time to make any last minute corrections based on feedback from the GTA's. **Late work will receive a deduction of 10% per day and will not be accepted after 4 days.**

Prelabs: There will be no prelab exercises this quarter.

Reports Sheets: The focus of the report sheets will (1) Communicate your observations, (2) Show how you analyzed the data including relevant calculations, (3) Interpret that data, and (3) Discuss what it means. All report sheets will be submitted through Canvas.

Lab Reports: We will be having you do writing as part of completing the report sheets. However, you will not be writing full lab reports this quarter.

Course Grading

Online Labs 7 x 100 pts	700 pts
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Total Points	700 pts
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