

## Syllabus: Chemistry 141 Fall 20: General Chemistry for Engineers Lab

**Instructor:** **Dr. Juliet M. Hahn**

**office:** Byrd 318 (outer part of 318, inner rooms are other professor's rooms)

**phone:** cell: 803-834-0827 (I have no office phone. **Only for emergency purposes**. I will not be happy if you use my cell phone for frivolous reasons)

**email:** [jhahn@citadel.edu](mailto:jhahn@citadel.edu) (probably the easiest way to get a hold of me)

**office hours:** **Please email me to request a zoom meeting.** If you need to zoom meet me at almost any reasonable time, I will be able to zoom meet with you. I am only teaching at the Citadel on **Thursday from 9 am until 5:20 pm** teaching almost continuously. I may be able to meet with you briefly when I am on campus but otherwise, **I prefer email, phone or zoom meetings.** I am commuting in from Columbia, SC (from my parent's house which they have owned for over 30 years). It is a 2 hour commute one way and while I would love to meet with you, it is really impractical for me to do so.

**textbook:** General Chemistry for Engineers Laboratory, Bevsek, Blanton, Capriotti, Dorko **2020**.

Goggles, nitrile gloves, and apron are available from the book store.

**Classroom R section 5: 9 am to 11:50 am** Byrd 107 (prelab), Byrd 206 (lab)

### **The lab grade is independent of the lecture grade.**

The **most important factor in your success in this course is preparation.** No matter how smart you are or how adept you are in the lab, coming into lab unprepared is going to result in your wasting time, stumbling your way through the experiments, being a danger to yourself and your classmates not to mention almost certainly lowering your grade by a letter grade. The major reason that people get **bad grades in lab** is: (1) **not turning in the lab report on time or not turning in the lab report at all** (2) **turning in the lab report with large portions missing or without answering any of the question.** If you listen to my prelab talk, you will notice that I will also give you all the information which you need to answer the lab report forms. You also get an **entire week to complete the few pages of the lab report.** You can probably complete the lab report if you know what you are doing in about a half an hour to an hour of work. **NOTE: "I give you all the answers. You just have to figure out which question goes with the answers."** Of course if you aren't taking notes, you won't remember what I said in answer to the question.

**Co-requisite:** Chem 140 the lecture class -- unless you have already passed Chem 140.

\*\*\* Start: If you read nothing else, please read this section \*\*\*\*\*

**Grading:** There are 10 labs during the semester. You will get to drop one (and only one) lab report grade and one (and only one) lab quiz grade. You may drop one unexcused absence lab & lab quiz OR your lowest grade lab & lab quiz if you missed no labs.

<b>Lab Quiz</b> (open book, not open neighbor, about one page long) .....	25 %
<b>Lab Report</b> .....	25 %
<b>Lab Completion</b> .....	40%
(showing up and doing the lab demonstrated from documentation of attendance by sign out)	
<b>Safety Points</b> (Technique Pts).....	10%
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Total.....	100 %

Your grades will be based on a percentage of total pts. (standard grading scale) [90% & above A, 80% & above B, 70% & above C, 60% & above D]

By showing up to lab and performing the experiment (without burning down the lab), you earn 50%. **If ALL you do is show up and do the experiment** and then (a) earn a zero on all the lab report by not turning in any lab reports OR (b) earn a zero on all the lab quizzes by not taking any of the lab quizzes all semester long, **you will only earn 50% ( a definite F)**

**demerit technique points / safety points**

**technique points:** You can lose UP TO a TOTAL of **10% for each lab for technique (If you lose these points at every lab, you will get no more than 90 % of your lab grade.)** Possible reasons for losing technique points are:

- (1) not having **safety glasses** on 100% of the time that you are in the lab as soon as one person starts doing experimental chemistry in the lab until not one person is still doing experimental chemistry in the lab. (In addition to losing those points, you may also go blind by spilling concentrated sulfuric acid on yourself or your lab neighbor may make you go blind by splashing concentrated sulfuric acid on you.)
- (2) **If you do anything which is a danger to yourself or to anyone in the lab**, you will lose up to 10% of the points for that lab. For example if the lab book and I point out that you should not go near the open container of ether with your lighted Bunsen burner and you do go near the ether with your lighted Bunsen burner, you will lose 10% for that lab for technique. (You will also probably set yourself and the open container of ether on fire as well.)
- (3) **Not following Dr. Hahn's directions** is also grounds for losing technique points. (see above – setting self on fire)

**Not cleaning up your chemical spills** is also grounds for losing technique points. (For instance if I tell you to clamp the beaker and you do not, you will lose up to a maximum of 10% points for technique and will probably also **break \$\$ of glassware**. If you **spill 10 grams of solid NaOH** and do not clean it up, someone else may come along and possibly injure themselves on your spilled NaOH. If you **spill 100 mL of ether** and don't do anything about it, someone else may come along and not knowing what the liquid is may start a serious fire. If it is a significant spill, you should notify me about your spill and I the garbage pail without notifying me. Etc.)

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**There will be no makeup lab, lab quiz or lab report without a valid excuse.** Without a valid excuse, **will earn a zero on missed work.** If you have a valid excuse (at my discretion), I will replace the missed lab grade with an **average of your other labs** prorated for the difficulty of the missing lab. Excused absences will be allowed only under clearly documented cases. (i.e. written doctor's excuse, written obituary, etc.)

Please **provide me a hard copy (or email me) of your documentation for my files.** Examples of valid excuses include: **medical grounds, death in the immediate family and documented weather related transportation problems and university business.** Examples that are not valid excuses include: personal problems, going away for the weekend, intramural sports, etc. (You get to **drop \*\*\*\* one and only one\*\*\*\* lowest grade lab – this may be an unexcused absence which has turned into a zero.** )

**Deadline:** Your completed lab reports are **due one week after the completion of the lab in the first 10 minutes of the next lab period.** There will be a **24 business hour grace period** during which you will lose no points for late labs. Please note that I am not on campus except on **Thursday so you will have to turn in your lab report online in order to meet the no penalty but late option** if you want to turn in 24 hours late without penalty. After the first 24 hours late, you will start to **lose 10% points every 24 hours** up to a maximum of 50% of your lab report grade.

example: If your lab starts at **9 am Thursday,** if you **email your lab report to me** before **9:10 am Friday,** you will lose no points. [scan your completed lab report OR take cell phone photos (pdf if possible) of your completed lab report to **email me your lab report**]

**If you turn in anything late, if you turn it in without emailing it to me, it will be considered 1 week late because I will only see it when I next come to the Citadel on the following Thursday.** ONE WEEK LATE is a lab report which is only worth 60%. If you leave your completed lab in my office or mail box before 9:10 am Friday, I have no way of knowing when you turned in your lab report (**& your lab report may walk away**). **You may tell me you turned in the lab report and I may say I never received it and then there may be major drama as we look for the lab report.** PLEASE DO NOT TURN IN YOUR LAB REPORT LATE INTO the top of my desk or under the door of my office or into my mailbox in the department office. My office is grand central station – it is really the hallway into other professor's office and I am only there on Thursday. If you leave your lab report for an entire week, there is no way of telling where it will end up.

**Data** - This consists of things like weight of reactant used, weight of your product after the end of your observation, temperature and volume chart. **You should report the amounts which you actually used and not the amounts given in your lab book.** When you give weights or volumes, you should also give the units. Yes I know that your lab book gives these numbers but when you actually weigh out or measure out your chemicals, you should list the actual accurate amounts of what you yourself used.

**Calculation** - This consists of theoretical yield, % yield and any other calculations. Don't just give me the final number, show your work. You may lose points if you just give me only the final numbers. Note that if you show me your calculations, **even if you get the final wrong number, you will get the majority of the points if you set up your calculations correctly.**

You will **rip out your lab report pages from your lab textbook for each experiment** and turn in your lab report pages each week at the deadline given. Please note that if all you do for each lab is do nothing but

come to lab and perform the experiment and turn in nothing, you will probably get either a D or F for the class. **If you hold all of your lab report pages until the end of the semester and then turn in ALL your lab report pages at the end of the semester, you will also get either a D or F** for the class because you will only earn a maximum of 50% for each really late lab report points for each lab

**Honor Code** Except for shared data for experiments which are done in pairs, [all work which you submit for grade must be your work and your work alone](#), in accordance with [The Honor Manual](#), paragraph 5b. Lying, including falsification of data, and cheating, including plagiarism, cannot be tolerated. For both cadets and [other students](#), the grade for dishonorable work and the consequence of dishonorable action within the Honor System are independent. I have the authority to assign zero grades for dishonorably submitted work regardless Honor System proceedings. See [The Honor Manual](#), paragraph 5. Thus, independently of the grade, dishonorable action will be reported. (from Prof. Jones syllabus)

Disability: For accommodations, students should follow the procedures of the [Student Success Center](#) which is located at [117 Thompson Hall](#). Their telephone number is 3-5305. (from Prof. Jones syllabus)

**One Final Note:** If you have some difficulties with this class, please come to see me (virtually by zoom) or talk to me while in the lab. You may just be spending all your time doing things that do not contribute to your grade and [you may be studying all of the wrong things](#). Sometimes just knowing how to study for a particular class is all you need in order to turn around your trajectory in a class. I want you ALL to do well in this class because you are my students.

[safety video \(The Citadel\)](#) (lab quiz next lab class in the prelab) + my youtube video + reading

**Laboratory Schedule Fall  
2020**

<b>Week Of</b>	<b>Experiment</b>
8/24	Introduction, Safety, <b>Experiment 1</b>
8/31	Check-in, <b>Experiment 2: Avogadro's Number</b>
9/7	<b>Experiment 3: Identification of Polymers</b>
9/14	<b>Experiment 4: Determination of Chemical Formulas</b>
9/21	<b>Experiment 5: Chemistry of Copper</b> (calculations)
9/28	<b>Exp. 5, cont.</b>
10/5	<b>Experiment 6: How Much CO<sub>2</sub> is in Pop Rocks?</b>
10/12	<b>Experiment 7: Spectroscopy of Atoms and Ions</b>
10/19	<b>Experiment 8: CdS Nanoparticles, lab check-out</b>
10/26	<b>Experiment 9: Lewis Structures</b>
11/2	<b>Experiment 10: Shapes and Properties of Molecules</b>
11/9	<b>Exp. 10, cont., last quiz</b>



Syllabus Agreement Form, Information Sheet & Permission to Return Exams Form

I have read and understand the policies stated in the syllabus for Dr. Hahn's **CHEM 141 Lab** class for the Fall semester of 2020. All questions have been answered to my satisfaction. By signing this sheet I agree to abide by the policies stated therein.

Your signature \_\_\_\_\_ **CHEM 141 Lab Fall 2020**

Print your name: \_\_\_\_\_ Date submitted: \_\_\_\_\_

\*\*\*\*\*Information Sheet (note: **your official Citadel emails will be used for official communications**)

contact phone # \_\_\_\_\_ contact email address \_\_\_\_\_

major \_\_\_\_\_ year (please circle one) fresh, sophomore, junior, senior, other

if other please explain \_\_\_\_\_ last chemistry course taken (course name)

\_\_\_\_\_ when (year, semester) \_\_\_\_\_ where (here, other) \_\_\_\_\_ cumulative GPA \_\_\_\_\_

grade received on last chemistry course \_\_\_\_\_

other science courses taking currently (give course name) \_\_\_\_\_

\_\_\_\_\_ Are you doing research? (yes, no) If so with whom? \_\_\_\_\_

Why are you taking this class? \_\_\_\_\_

\_\_\_\_\_ hobbies: \_\_\_\_\_

Feel free to tell me anything else you would like me to know about you: \_\_\_\_\_