

## CHEMISTRY 1211K LABORATORY SYLLABUS

Summer 2020

CRN# 50348

Georgia State University, Atlanta Campus

June 10 – July 21, 2020

Fully online lab course will use LabFlow platform

**Instructor:** [Dr. Gigi B. Ray](#)

**Email:** [gbray@gsu.edu](mailto:gbray@gsu.edu)

*Send emails from your GSU email account. Write "Chem1211 Lab" on subject line*

**Virtual Office Hours:** Tuesdays & Thursdays 1pm – 2pm, or by appointment

### Lab Teaching Assistants:

Michael Ezenweke [mezenweke1@student.gsu.edu](mailto:mezenweke1@student.gsu.edu)

Astrid Tarleton [atarleton1@student.gsu.edu](mailto:atarleton1@student.gsu.edu)

### Office Hours

Mondays 1 – 2 pm

Fridays 1 – 2 pm

**Lab Coordinators:** Dunay Busto and Bin Xu

### Lab Policies:

1. Required: Enroll in LabFlow online. See directions at the end of the syllabus or in iCollege.  
**Course name:** Georgia State University - Summer 2020 - CHEM1211K  
**Section name:** 50348
  - Your enrollment code is the 5-digit course CRN for your section in PAWS (see below).
  - **Make sure you are in the correct section.** Confirm your section details by choosing the first day of the week that your lab section meets (either Monday or Tuesday) and lab meeting time:

<u>Name</u>	<u>CRN</u>	<u>Meeting Time**</u>	<u>section</u>	<u>email</u>
Dr. Gigi Ray	50348	Tues/Thurs 1pm - 4pm	003	<a href="mailto:gbray@gsu.edu">gbray@gsu.edu</a>
Dr. Jyotsna Thota	50065	Mon/Wed 1pm - 4pm	009	<a href="mailto:jthota@gsu.edu">jthota@gsu.edu</a>
Dr. Jie Jiang	50066	Tues/Thurs 9am - 12pm	006	<a href="mailto:jjjiang2@gsu.edu">jjjiang2@gsu.edu</a>

*\*\*Note: Course is fully online – meeting time is simply used during LabFlow online registration to select your lab section.*

2. All lab materials and assignments will be delivered and submitted online through LabFlow. Make sure to register with LabFlow no later than Wednesday June 10<sup>th</sup>. There is no additional cost to the student for using the LabFlow platform.
3. Since Chem 1211 Lab is an online course, you need an active LabFlow account and to understand how to communicate with your lab instructor via their GSU email (put "Chem 1211 Lab" in the subject line). Send questions about issues with the LabFlow platform to their technical support.

4. The lab assignments (including all the quizzes and data reports) will be released weekly and have specific due dates that close on Tuesdays at 11:30pm (see the Experiment Schedule below). No access/submission will be allowed after the due. There are no makeups for a lab report. If you do not complete the lab report, you will receive a grade of a zero.
5. It is very important to know that you should NEVER miss a lab. Missing prelab or lab will result in loss of points. Failure to complete 2 labs will result in failure of the course.
6. To pass the Lab: Students MUST (i) complete the safety quiz, (ii) complete a minimum of 9 out of the 10 remaining quizzes, and (iii) submit a minimum of 7 out of 8 lab reports, including all 6 reports in weeks 1 to 5. Failure to do any of these results in a grade of an F for the 1211K course.
7. The last day to withdraw from Chem 1211K and receive a W is Monday July 6, the midpoint of the semester. If you need to drop the 1211 lecture, you must also drop the 1211 lab since the two have a combined grade. The University requires that faculty members must, on a date after the mid-point of the course: (i) Give a WF to all those students who are on their rolls but no longer taking the class, (ii) Report the last day the student attended or turned in an assignment.
8. All the assignments must be completed independently to avoid zero credit penalty for cheating (sharing lab information with others, using any electronic sources, taking screen shots and pictures). Please see the GSU Academic Honesty policy at:  
<https://deanofstudents.gsu.edu/files/2019/07/Academic-Honesty-Policy.pdf>
9. Students who wish to request accommodation for a disability may do so by registering with the Access and Accommodation Center. Students may only be accommodated upon issuance by AACE of a signed *Accommodation Plan* and are responsible for providing a copy of that plan to instructors of all classes in which accommodations are sought. Students with AACE accommodations should then contact their lab instructor during the *first week* of classes to discuss any accommodations that need to be made.

### **Lab Quizzes and Lab Reports:**

1. Lab safety quiz in week one has three attempts with a time limit of 45 minutes per attempt.
2. All other lab quizzes have TWO attempts with 30 minutes for each attempt. The highest score attempt will be recorded. Upon submitting a quiz you will see two scores:  
**Correct:** 25.00/30.00 pts ← *this is the number of questions you got correct on the quiz*  
**Scaled Grade:** 8.3/10.00 pts ← *this is the points recorded in the gradebook and counts towards your total of 200 lab points*
3. All lab data reports will have TWO attempts. Only the last submission will be graded.
4. Within a Quiz or Lab Report (Data Submission) any question that is assigned zero points does NOT need to be answered.
5. All the videos and pdf files will be available for the whole semester but the quizzes and data reports will only be open during the 'week' of the lab (Wednesday 8:00am – Tuesday 11:30pm) and will close when past the due date.
6. In experiment PDFs only read the Objectives, Introduction and Procedure sections.  
(Skip any pre-lab questions, report sheet or post-lab questions in the PDF. Instead, these will be covered in the Quiz & Lab Data Submission Report.)

**Grading:**

Quizzes (Prelab Quizzes and Lab Safety Quiz)	80 points
Lab Report (Data Submission)	120 points
<b>Total</b>	<b>200 points</b>

Note: Chem 1211 lecture (600 points, 75%) and Chem 1211 lab (200 points, 25%) are combined to determine your overall 1211K grade for the semester.

Task	Quiz Points	Report Points	Total Points
Lab Safety	10		10
Basic Lab Techniques	5	10	15
Conversion Factors	5		5
Density	10	15	25
Recrystallization	10	10	20
Melting Point	5	15	20
Indicator Titrations	10	30	40
Excel for Graphing	10		10
pH Meter Titrations	10	30	40
Qualitative Analysis	5	5	10
Buffer Solutions		5	5
<b>Semester Points</b>			<b>200</b>

**Experiment Schedule (Tentative – adjustments may occur)**

Weeks/Lab Dates	Lab Session	Pre-lab Quiz and Lab Data Report Due
Week 1 (June 10 <sup>th</sup> -June 16 <sup>th</sup> )	Lab safety Basic Laboratory techniques	11:30pm on June 16 <sup>th</sup>
Week 2 (June 17 <sup>th</sup> -June 23 <sup>rd</sup> )	Conversion factors Density	11:30pm on June 23 <sup>rd</sup>
Week 3 (June 24 <sup>th</sup> -June 30 <sup>th</sup> )	Recrystallization of Acetanilide Melting Point	11:30pm on June 30 <sup>th</sup>
Week 4 (July 1 <sup>st</sup> -July 7 <sup>th</sup> )	Indicator Titrations Excel for Graphing	11:30pm on July 7 <sup>th</sup>
Week 5 (July 8 <sup>th</sup> -July 14 <sup>th</sup> )	pH meter Titrations	11:30pm on July 14 <sup>th</sup>
Week 6 (July 15 <sup>th</sup> -July 21 <sup>st</sup> )	Qualitative analysis Buffer solutions	11:30pm on July 21 <sup>st</sup>

### Experiment Tasks:

- Week 1:** (1) **Lab Safety**—watch all 8 safety videos, complete and submit the lab safety quiz on time. Even though this is an online class, it is very important for everyone to understand and learn all the lab safety, not only because it is required by the Chemistry department but also because it will protect you anytime when you work in the lab.
- (2) **Basic Laboratory techniques** ---- read experiment PDF file (skip pages 9 - 16), watch all 6 videos, complete and submit the pre-lab quiz and lab data and report submission on time.
- Week 2:** (1) **Conversion factors** --- read experiment PDF file, watch 1 video, submit the quiz.
- (2) **Density**--- read PDF file (Chemistry Glassware & Measurement), watch 4 videos, read Notebook Procedure and create notebook entries, submit pre-lab quiz and lab report. At the end of the lab report upload images of notebook pages (include 2 completed data tables with %Deviation and show sample calculations).
- Week 3:** (1) **Recrystallization of Acetanilide** --- read experiment PDF file, watch 3 videos, read Notebook Procedure and create notebook entries, submit pre-lab quiz and lab report. At the end of the lab report upload images of notebook pages (include experiment title, purpose, materials, and summary of procedure as bullet points in your own words).
- (2) **Melting point** --- read experiment PDF file (Melting Points of Compounds and Mixtures), watch 1 video, submit pre-lab quiz and lab report.
- Week 4:** (1) **Indicator Titrations** --- read experiment PDF file (Volumetric Analysis – only do parts A and B of the experiment), watch 8 videos, read Indicator Acid-Base Neutralizations Reactions (with worked sample calculations), submit pre-lab quiz and lab report.
- (2) Learn to use Excel for Graphing --- read experiment PDF file, watch 1 video, submit pre-lab quiz.
- Week 5:** (1) **pH Meter Titrations** --- read experiment PDF file (Determination of Molar Mass and Identity of Diprotic Acid), watch 6 videos, submit pre-lab quiz, select one of the three sample data sets (based on the first letter of your last name). Use Excel to plot a titration curve and determine pKa1 and pKa2 from the plot. Then enter the sample data into the lab report, submit lab report and upload your Excel graph file.
- Week 6:** (1) **Qualitative Analysis** --- read experiment PDF file (only do silver halide and ammonia tests in experiment – skip chlorine water test), watch 5 videos, submit the pre-lab quiz and lab report.
- (2) **Buffer Solutions** --- read experiment PDF file (focus on concept explanations of buffers in PDF and Buffer & Titration Curves video, skip all calculations), watch 3 videos, submit lab report.