

Principles of Chemistry I Lab (CHEM 1211)

Online Course Syllabus-Fall 2020

Department of Chemistry
Georgia State University

Lab Instructors:

Dr. Tarushee Ahuja tahuja1@gsu.edu
CRN: 86631 / 82923 Tue 9am-12pm
CRN: 92765 / 92270 Wed 9am-12pm

Dr. Hamed Laroui hlaroui@gsu.edu
CRN: 92767 / 88727 Tue 1-4 pm
CRN: 93524 / 93523 Fri 9am-12pm

Dr. David Connors dconnors@gsu.edu
CRN: 87559 / 88728 Tue 11am-2pm
CRN: 80095 / 80094 Tue 2-5 pm
CRN: 91320 / 84587 Thu 2-5 pm

Dr. Keith Pascoe chekop@gsu.edu
CRN: 80092 / 87557 Mon 11am-2pm
CRN: 81319 / 83495 Mon 2-5 pm

Dr. Nilmi Fernando nfernando1@gsu.edu
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CRN: 93522 / 93521 Thu 1-4 pm

Dr. Gigi Ray gbray@gsu.edu
CRN: 80962 / 80093 Mon 11am-2pm
CRN: 87558 / 83936 Wed 12pm-3pm

Dr. Jie Jiang jjiang2@gsu.edu
CRN: 92896 / 91917 Fri 11am-2pm

Dr. Bin Xu bxu6@gsu.edu
CRN: 89585 / 92764 Wed 2-5pm
CRN: 93514 / 93513 Thu 11am-2pm

Dr. Narinder Kaur Harika nkaur1@gsu.edu
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Hye Mi Kim hkim127@student.gsu.edu
CRN: 84151 / 80960 Wed 3-6pm

Course Description

Principles of Chemistry I Lab is the first lab in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. The purpose of this chemistry laboratory is to provide the key knowledge base and laboratory resources to prepare students for careers as professionals in the field of chemistry, for graduate study in chemistry, biological chemistry and related fields, and for professional school including medical, dental, law and business programs.

Please note that this syllabus reflects a plan for the semester. Deviations may become necessary as the semester progresses.

Course Modality

Chem 1211 Lab will be fully online. All work related to experiments will be done asynchronously using the Labflow platform.

Students will have access throughout the entire lab week to prelab materials, experiment directions and videos in Labflow.

Weekly QUIZZES and REPORTS (work submitted for grading) will be available to students only on their scheduled lab day between 8:00am - 11:30pm.

Lab announcements and Prelab directions/videos will be available in the Chem 1211 course iCollege page, in your lab instructor's subfolder within the "Laboratory Information" folder.

Students need to register in Labflow between Aug 24 – 28, download the free app "AdobeScan" and take the syllabus quiz in Labflow. Lab experiments will start the week of Aug 31st.

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Schedule

Although this is an online course, we do have a set schedule. Please note that deviations may become necessary as the semester progresses. Refer to the calendar below frequently as we work together. The course is designed in to help you stay on track with weekly announcements, experiment introductions, and specific due dates for graded items (Quizzes, Lab Reports and Notebook uploads).

If this is your first time taking an online course, please review the Online Time Management Essentials guide (<https://cetl.gsu.edu/resources/resources-for-learning-remotely/internet-options/>).

Tentative Laboratory Schedule

| Lab Week | | | Quiz | Report | Online Experiments (on Labflow platform) |
|----------|--------|--------|-----------|------------|---|
| Starts | Ends | Points | Points | | |
| | 24-Aug | 28-Aug | 2 | 0 | Online Labflow Registration + Syllabus Quiz |
| 1 | 31-Aug | 4-Sep | 10 | 0 | Lab Safety (Q) |
| 2 | 7-Sep | 11-Sep | 10 | 5 | Basic Lab Techniques (Q,R) + Conversion Factors (Q) |
| 3 | 14-Sep | 18-Sep | 5 | 10 | Density (Q,R) |
| 4 | 21-Sep | 25-Sep | 5 | 10 | Recrystallization (Q,R) |
| 5 | 28-Sep | 2-Oct | 5 | 10 | Empirical Formulas (Q,R) |
| 6 | 5-Oct | 9-Oct | 5 | 10 | Melting Point (Q,R) |
| 7 | 12-Oct | 16-Oct | 5 | 10 | Chemical Reactions and Equations (Q,R) |
| 8 | 19-Oct | 23-Oct | 5 | 15 | Indicator Titrations (Q,R) |
| 9 | 26-Oct | 30-Oct | 5 | 5 | Excel for Graphing (Q,R) |
| 10 | 2-Nov | 6-Nov | 5 | 15 | pH meter Titrations (Q,R) |
| 11 | 9-Nov | 13-Nov | 5 | 10 | Compounds and their Bonds - Lewis Structures (Q,R) |
| 12 | 16-Nov | 20-Nov | 5 | 5 | Qualitative Analysis (R) and Buffers (Q) |
| | 23-Nov | 27-Nov | | | <i>Thanksgiving week holiday</i> |
| 13 | 30-Nov | 4-Dec | | 25 | Final Exam in iCollege |
| | | | 70 | 130 | Total Points = 200 |

Q = Prelab Quiz

R = Lab Report with Notebook Upload

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Assessment

There will be weekly quizzes, lab reports and notebook uploads in Labflow.

The end of semester final exam will be conducted in iCollege on the week of Nov 30 - Dec 4, 2020.

Course Grades The grading scale for this course is as follows:

| | | |
|--------------------|-------|--|
| Safety Quiz | = 10 | <i>* Students in Chem 1211 lecture and lab receive one combined grade for the course. The lab is worth 25% (200 pts) and the lecture is worth 75% (600 pts). The final semester grade is out of 800 total pts, and is determined as stated in the lecture course syllabus.</i> |
| Quizzes | = 60 | |
| Laboratory Reports | = 105 | |
| Final Exam | = 25 | |
| Total Points | 200 * | |

Lab Quizzes and Lab Reports in Labflow

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 (based on % correct) 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. In lab reports, always select YES for 'completing online' to get provisional (experimental) data.
5. In experiment PDFs in Labflow only read the Objectives, Introduction and Procedure sections. (Skip any prelab questions, report sheet or post-lab questions in the PDF itself. Instead, you will submit answers to these questions in the Quiz and the Lab Data Submission Report.)

Course Objectives

1. Use the knowledge gained for critical thinking and logical demonstration of concepts of General Chemistry
2. Application of chemical principles in a laboratory setting
3. Developing independent and cooperative learning skills
4. Ethical and safe handling of chemicals and environmental issues

Student Learning Outcomes

Upon completing this course, students will gain an understanding of:

1. the fundamentals of chemical and physical properties of matter, types of chemical reactions, molecular geometries, acid/base chemistry, pH calculations, buffers and acid/base titrations
2. the scientific method of collecting, analyzing, organizing and recording information
3. problem solving, critical thinking and analytical reasoning skills as applied to scientific problems, communicating the results of scientific work in oral, written & electronic formats
4. proper laboratory techniques and safety

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Course Help

Note that this is a 100% online course. Here are a few tips to get you started.

How Do I Contact My Lab Instructor?

Official GSU email is the best method of communication between the instructor and the students. Use your GSU student email, not the iCollege email. Please include the course number in the subject line, e.g. 'CHEM 1211 Lab'. On weekdays, every effort will be made to reply to emails within 24 hours. Your scheduled lab day is the best day to ask the instructor for assistance.

How Do I Access My Course?

In the beginning of the semester, you will be given an enrollment code to register with the online laboratory platform Labflow, where experiments will be conducted. Your enrollment code is available in iCollege in your lab instructor's subfolder in the 'Laboratory Information' folder, and in your course syllabus. You need to enroll in Labflow before 11:30pm on Friday Aug 28th.

- Only use your **GSU EMAIL** to register in Labflow
- **Course name:** Georgia State University - Fall 2020 - CHEM1211K Online
- **Make sure you are in the correct section.** Confirm your section details: your lab instructor's name, the day of the week that your lab section meets and your lab meeting time.

In addition to Labflow, announcements regarding assignments, due dates, etc. will be posted in iCollege, Georgia State University's learning management system. It is the student's responsibility to follow the iCollege schedule and keep up to date with the laboratory assignments.

What Are the Required and Optional Materials?

The following resources are required for this course:

- A composition lab notebook and a basic scientific calculator.
- Registration on the Labflow platform (www.labflow.com) the week of Aug 24 - 28, 2020 and completion of the syllabus quiz that week.
- Download the free 'Adobe Scan' app on your phone, so that you can take scans of your notebook pages and upload them as PDF files when you submit Lab Reports in Labflow.

Are There Any Required Meetings?

- It is highly recommended that students meet weekly with their laboratory instructor during office hours to ask questions and discuss your progress with lab experiments.
- Although you will have until 11:30pm on your lab day to submit your report, your lab instructor may not be available to answer questions outside of your scheduled lab hours.

How Do I Succeed in this Course?

In Labflow, read the experiment directions and watch the videos BEFORE your scheduled lab day. On your lab day ask questions during office hours and take the pre-lab quiz and complete the lab report. *Your scheduled lab day is the best day to ask the instructor for assistance.*

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If this is your first time taking an online course, you should refer to GSU's online student success guide: [Keep Learning: Resources For Learning Away From Campus](#).

If you want to borrow equipment such as an ipad or a chrome book, please contact <https://library.gsu.edu/services-and-spaces/spaces-and-technology/borrow-equipment/>

Course Policies

Carefully review the course policies.

Attendance Participation Policy

It is important to know that you should NEVER miss a lab. Missed prelab quizzes or lab reports will result in a loss of points. Students are required to complete all lab experiments, take all the quizzes and submit all the reports by the DUE DATES given in the syllabus. **There will not be any dropped quiz or report, they will all count for points.**

To pass the Lab: Students MUST (i) complete the safety quiz, (ii) complete a *minimum* of 11 out of the 12 remaining quizzes, and (iii) submit a *minimum* of 10 out of 11 lab reports, including all 9 reports in weeks 3 to 11. Failure to do any of these will result in a grade of an 'F' for the 1211K course.

Incomplete assignments and those not submitted by the due date will count as zero. Assignments will NOT reopen after the due date (11:30pm of the day after your scheduled lab meeting day). The final exam is a required component to successfully pass the lab. Participation is monitored and recorded. However, this level of instruction includes expected personal responsibility. Do not assume or expect extensions for due dates. YOU are responsible for missed work. Legitimate reasons such as emergencies, hospitalization, etc. will be considered as excused absences for missed work provided proper documentation is submitted to the instructor no later than one week after the absence.

Withdrawal: The semester midpoint is Tuesday October 13th, 2020. This is the last day to withdraw from the course and receive a 'W'. If you withdraw from the lecture you must also withdraw from the lab since the grade for the two are combined. Likewise, if you withdraw from the lab you must also withdraw from the lecture. After the midpoint, withdrawing results in a 'WF' grade on your transcript. Missed work does not guarantee withdrawal or an incomplete. Any student who does not withdraw formally and has unexcused absences for the lab assignments will receive an 'F'. A withdrawal from this course will necessitate re-taking the laboratory.

*Please talk to your instructor and your advisor before withdrawing from the course. We care about your success and are here to discuss your options with you.

Course Evaluation

Your constructive feedback of this course plays an indispensable role in shaping education at Georgia State University. Upon completing the course, please take the time to fill out the online course evaluation.

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Other Policies

GSU Policy Regarding Student Conduct and Integrity:

The Georgia State University Policy on Academic Honesty is in force in this course, including, but not necessarily limited to, infractions in the areas of plagiarism, cheating on examinations, unauthorized collaboration, falsification, and multiple submissions. The University's policy is published in the "On Campus: The Student Handbook", available to all members of the university community. Therefore, all exams taken online must represent your individual unaided efforts.

Cheating: "Cheating" is defined as unauthorized help on an examination or assigned course material. Taking pictures or screenshots and sharing these is considered cheating. A student must not receive from any other student or give to any other student any information, answers, or help for a lab assignment. A student must not "borrow" the answers or data from an unsuspecting student. A student must not use any sources for answers during a quiz or completion of a report (including, but not limited to: notes, books, electronic devices or online sources) without prior authorization from the instructor. A student must not obtain quiz/report questions illegally, tamper with the exam questions, nor change the results of an exam after it has been graded. All cheating infractions will result in a grade of "0" for the assignment. This policy shall be adhered to unless mitigating circumstances should prove a lesser penalty should apply. Students shall have the right to contest a cheating claim. The appeals process is specifically defined in the student handbook. Sharing information/cheating via group messaging apps such as GroupMe or Slack is a violation of the Academic Honesty Policy.

Plagiarism: "Plagiarism" is defined as the taking of a person's ideas, words, or information and claiming those properties as one's own. The use of all ideas, words, or information from any source must be properly referenced and due credit must be given to its author. Any assignment which scores higher than 30% on copied material will automatically receive a grade of "0". Properly quoting and citing borrowed information is NOT plagiarism. However, since the integrity of the assignment is based upon the originality of the student's work, no student may turn in a paper which exceeds a 30% score in properly quoted and cited material. The instructor reserves the right to employ means to check the "originality" of a student's work. Students shall have the right to contest a plagiarism or cheating claim. The appeals process is specifically defined in the student handbook.

Conduct or actions that disrupt class or test periods or falsification of information related to chemistry courses by any student will be taken as violation of the policies of the Board of Regents of the University System of Georgia and the GSU Student Code of Conduct, Section 6.0. Any suspected offenses may be referred to the Department Chair and the Dean of Students for appropriate disciplinary action. Any student presenting falsified documentation will receive an "F" for the course and be referred to the Chemistry Department Chair or Dean of Students for disciplinary action.

Consequences beyond school - Should you consent to a background check, GSU is required to report all academic integrity violations which could interfere with plans for a promising career in a given field.

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Special Needs:

Students who wish to request accommodation for a disability may do so by registering with the Access and Accommodations Center. Students may only be accommodated upon issuance by the Access and Accommodations Center 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 special needs must then make an appointment with the course instructor during the first week of class to discuss any accommodations that need to be made.

FERPA:

In keeping with USG and university policy, this course website will make every effort to maintain the privacy and accuracy of your personal information. Specifically, unless otherwise noted, it will not actively share personal information gathered from the site with anyone except university employees whose responsibilities require access to said records. However, some information collected from the site may be subject to the Georgia Open Records Act. This means that while we do not actively share information, in some cases we may be compelled by law to release information gathered from the site. Also, the site will be managed in compliance with the Family Educational Rights and Privacy Act (FERPA), which prohibits the release of education records without student permission.

Sexual Harassment:

In instances of sexual misconduct, the present instructor(s) and teaching assistants, are designated as Responsible Employees who are required to share with administrative officials all reports of sexual misconduct for university review. If you wish to disclose an incident of sexual misconduct confidentially, there are options on campus for you do so. For more information on this policy, please refer to the Sexual Misconduct Policy which is included in the Georgia State University Student Code of Conduct.

Basic Needs Statement:

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify the instructor if you are comfortable in doing so. This will enable us to provide resources that we may possess. The Embark program at GSU provides resources for students facing homelessness.