Principles of Chemistry I (CHEM 1211K) Lab
Online Course Syllabus - Spring 2021
Department of Chemistry
Georgia State University

Lab Instructors:

Dr. Joan Comar  jmutanyattacomar@gsu.edu
CRN: 21511/10696  Thu 9am-12pm

Dr. Nilmi Fernando  nfernando1@gsu.edu
CRN:12786/21512  Thu 2pm-5pm

Dr. Keith Pascoe  chekop@gsu.edu
CRN: 21516 / 13179  Wed 3:10pm-6:10pm
CRN: 13128 / 21514  Wed 11am - 2pm

Dr. Gigi Ray  gbray@gsu.edu
CRN: 21519 /14233  Tue 2pm-5pm
CRN: 21518/13980  Fri 9am – 12pm

Dr. Elina Stroeva  estrova@gsu.edu
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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 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 1211K Lab will be 100% online using the Labflow platform. Students need to register in Labflow between January 11th – 18th and take the syllabus quiz. Lab experiments will start in the week of January 18th. QUIZZES and REPORTS in Labflow will be available for 24h starting at the beginning of your scheduled lab time every week.

The pre-lab lecture will be done synchronously via WebEx by your lab instructor during the scheduled pre-lab time specified in your course schedule in PAWS. Each student is expected to attend the synchronous pre-lab lectures. Please follow the syllabus from your lab instructor for more detailed class schedule.

Lab announcements, prelab directions/videos and other study material will be available in your lab instructor’s submodule within the “Laboratory Information” module in iCollege.
**Schedule**

Please note that deviations of the schedule may become necessary as the semester progresses.

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/](https://cetl.gsu.edu/resources/resources-for-learning-remotely/internet-options/)).

**Laboratory Schedule**

<table>
<thead>
<tr>
<th>Lab Week starts</th>
<th>Lab week ends</th>
<th>Quiz points</th>
<th>Report points</th>
<th>Online Experiment in Labflow</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-Jan</td>
<td>18-Jan</td>
<td>2</td>
<td>0</td>
<td>Labflow Registration + Syllabus Quiz</td>
</tr>
<tr>
<td>18-Jan</td>
<td>22-Jan</td>
<td>7+3</td>
<td>0</td>
<td>Lab Safety (Q) + Conversion Factors (Q)</td>
</tr>
<tr>
<td>25-Jan</td>
<td>29-Jan</td>
<td>3</td>
<td>10</td>
<td>Basic Lab Techniques (Q) + Density (R)</td>
</tr>
<tr>
<td>1-Feb</td>
<td>5-Feb</td>
<td>5</td>
<td>10</td>
<td>Recrystallization (Q, R)</td>
</tr>
<tr>
<td>8-Feb</td>
<td>12-Feb</td>
<td>5</td>
<td>10</td>
<td>Melting Point (Q, R)</td>
</tr>
<tr>
<td>15-Feb</td>
<td>19-Feb</td>
<td>5</td>
<td>10</td>
<td>Empirical Formulas (Q, R)</td>
</tr>
<tr>
<td>22-Feb</td>
<td>26-Feb</td>
<td>5</td>
<td>10</td>
<td>Chemical Reactions and Equations (Q, R)</td>
</tr>
<tr>
<td>1-Mar</td>
<td>5-Mar</td>
<td>5</td>
<td>10</td>
<td>Ideal Gas Law (Q, R)</td>
</tr>
<tr>
<td>8-Mar</td>
<td>12-Mar</td>
<td>5</td>
<td>10</td>
<td>Thermochemistry (Q, R)</td>
</tr>
<tr>
<td>15-Mar</td>
<td>19-Mar</td>
<td>5</td>
<td>10</td>
<td><strong>SPRING BREAK</strong></td>
</tr>
<tr>
<td>22-Mar</td>
<td>26-Mar</td>
<td>5</td>
<td>10</td>
<td>Indicator Titrations (Q, R)</td>
</tr>
<tr>
<td>29-Mar</td>
<td>2-Apr</td>
<td>5</td>
<td>10</td>
<td>Excel for Graphing (Q) + Beer’s Law and Spectrophotometry (R)</td>
</tr>
<tr>
<td>5-Apr</td>
<td>9-Apr</td>
<td>5</td>
<td>10</td>
<td>pH Meter Titrations (Q, R)</td>
</tr>
<tr>
<td>12-Apr</td>
<td>16-Apr</td>
<td>5</td>
<td>10</td>
<td>Compounds and Their Bonds (Q, R)</td>
</tr>
<tr>
<td>19-Apr</td>
<td>23-Apr</td>
<td>25</td>
<td></td>
<td>Final Exam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>65</td>
<td>135</td>
<td>Total Points = 200</td>
</tr>
</tbody>
</table>

Q = Pre-lab Quiz  
R = Lab Report (some reports include notebook uploads)
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Assessments
The final lab grade will be calculated out of 200 points which is combined with the lecture points.

Course Grades

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>65</td>
</tr>
<tr>
<td>Reports</td>
<td>110</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25</td>
</tr>
<tr>
<td>Total Points</td>
<td>200 *</td>
</tr>
</tbody>
</table>

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 per attempt. The highest attempt will be recorded. Upon submitting a quiz you will see two scores, for example:
   - **Correct**: 25.00/30.00 pts
   - **Scaled Grade**: 8.3/10.00 pts
   \[this \ is \ the \ number \ of \ questions \ you \ got \ correct \ on \ the \ quiz\]
   \[this \ is \ the \ points \ recorded \ in \ the \ gradebook \ (based \ on \ % \ correct) \ and \ counts \ towards \ your \ total \ of \ 200 \ lab \ points\]

3. All lab data reports will have ONE attempt.

Student Learning Outcomes

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

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

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

Always contact your lab instructor for any lab related questions—NOT your lecture instructor.

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 1211K 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, your lab instructor will provide the signup instructions with an enrollment code to register with the online laboratory platform Labflow. Your enrollment code is available in iCollege in your lab instructor’s submodule and in your course syllabus. You need to enroll in Labflow before 8:00pm on Monday January 18th.

- Only use your GSU email to register in Labflow
- Course name: Georgia State University – Spring 2021 - CHEM1211K Online
- Make sure you are in the correct section in Labflow. Confirm your section details:
  - Your lab instructor’s name
  - The day and time of your lab
  - The CRN of your lab course
  - The enrollment code

In addition to Labflow, announcements regarding assignments, due dates, etc. will be posted in your lab instructor’s submodule in iCollege. It is the student’s responsibility to follow the lab 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 in the Labflow platform (www.labflow.com) the week of January 11th - January 18th, 2021 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 pre-lab and office hours to ask questions and discuss your progress in lab experiments.
- Although you will have until 24h 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 (The PDF file and related power point) and watch the videos BEFORE your scheduled lab day. On your lab day ask questions during pre-lab lecture and office hours. Take the pre-lab quiz and complete the lab report as early as possible. Do NOT wait until the last minute to start your work. It takes time to work on the questions and to submit your scanned notebook.

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 below.

Attendance/ Participation Policy
It is important to know that you should NEVER miss a lab. Missed prelab quizzes or lab reports will result in 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.

Makeup Lab Policy
Assignments will NOT reopen after the due date and time. 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 March 2nd, 2021. 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. If you drop the lecture, you cannot continue taking the lab.

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.
**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 assignments 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. 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 students 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.
Students Requiring Testing Accommodations
Students who wish to request testing accommodations may do so by registering with the Access & Accommodations Center (AACE). 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 an accommodation is sought, in the first week of classes.

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 to 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 and Panther’s Pantry provides resources for students facing food insecurity.