

Tentative Schedule for Chemistry 101.3, Section 01, Fall 2020

TEXT: General, Organic, and Biological Chemistry, 4th Edition, McGraw Hill Education: Janice Gorzynski Smith, Queens College Custom Print

Class Hours: Lecture: Tuesday, Thursday 10:45-12:00
Instructor: Prof. Olga Binyaminov
Email: Olga.Binyaminov@qc.cuny.edu

GENERAL

Chemistry 101.3 is a one semester, basic chemistry course roughly equivalent in caliber to the Regents Chemistry course taught in high schools within New York State. The course serves as a foundation for students who will go on to take Organic (Chem. 102) and Biochemistry (Chem. 103). A grade of C or higher is required to register for these courses. The course meets twice a week for a total of 3 credit hours and includes both the recitation and lecture. The laboratory course, Chem. 101.1 is a separate co-requisite for Chem. 101.3 and is administered and graded separately.

In chemistry 101.3, the student will develop an understanding of basic atomic structure, including the rationale for the formation of ions and molecules. Students will learn basic skills involved in making measurements, understand the scientific method, stoichiometry, solution chemistry, equilibrium, and acid-base chemistry. Students will master gas laws and develop and understanding of the energetics of chemical reactions.

Grading

Your final score is based on the following calculation:

2 Lecture Exams: 40%; No exams are dropped.
Aleks Homework Assignments: 20%;
Final exam: 25%,
Quizzes: 15%,

Please note: A final grade of “C” or better is required to continue on to Chem. 102.
Homework assignments must be completed by the due date online using the ALEKS Online Homework Program, Course Code: QVEEP-FGXRN

There will be 3 quizzes throughout the semester. There will be no make-ups for missed quizzes.

No makeup is given for missed lecture exams. If you miss one exam, your final exam score will be duplicated to replace the missed exam score.

Extra Credit: An extra credit assignment will be posted at the end of several chapters (total of 5 assignments) for a bonus of 2% each, and a total of 10% extra credit to be added onto your average. Due dates will be strictly followed.

All exams and quizzes must be taken live (on zoom) with the following setup to be done prior to exam. Failure to do so will result in a zero on your exam.

Students are expected to attend all lectures. Prior to each lecture, the students are expected to read the material in the textbook and be familiar with the concepts in the readings. The purpose of the lecture is to summarize the material, highlight important concepts, and provide illustrative examples of these concepts including solving typical problems. The attached lecture schedule is tentative and any variations which may arise will be addressed in class during lecture and via Blackboard postings.
Problem solving is a critical aspect of this course. By working to solve problems, students will come to better understand and master the various concepts. Homework assignments on the ALEKS online homework system are designed to provide instructional support of the course material but are also a significant (20%) component of the final grade. I encourage students to work in groups to solve problems; however, you must do the final entry to the homework system yourself.

**Required tools and accounts:**

- **Zoom account:**
  
  Go to zoom.us, and register for a free account.

  When joining a meeting, click on join a meeting tab, and enter the meeting ID above.

  Alternatively, you may use the following link:

  [https://zoom.us/j/92866098448?pwd=VnRQNWVmRDV6M3VseDEwRW54QUt0UT09](https://zoom.us/j/92866098448?pwd=VnRQNWVmRDV6M3VseDEwRW54QUt0UT09)

  Meeting ID: 928 6609 8448

  Passcode: 138901

- **An active Queens College email account**

- **McGraw Hills Aleks Account:**

  You will need a Aleks account for some of the pre and post assignments, as well as for midterm and final exam.

  Register to Aleks.com. and enter the following code **QVEEP-FGXRN** for your class. See guide for Aleks registration in google classroom.
Google Classroom Registration:

Go to gdrive.qc.cuny.edu

Login with your CAMS account (looks like jsmith100,) if you have forgotten your username or password- go here: cams.qc.cuny.edu).

(Accept terms and conditions if it's your first time logging in).

Go to Classroom.google.com, (Identify as a student).

Click the + button on the top right.

Add the course code. The code for this class is “u75lyvq”

Troubleshooting-

After logging in, it won't let you add the class.
A: Sometimes it switches you back to your personal Google account if you have more than one logged in at a time. Open the account switcher by clicking on your initial or profile picture in the top right and enter your QC account.

If you do not know CAMS account/password, go to cams.qc.cuny.edu and click forgot Username or Password.

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Recording a session

All sessions will be recorded, and shared on google classroom for your review. Please read and acknowledge the following disclaimer. You will be required to consent to this disclaimer during our first session, by typing “agree” in zoom chat.

“Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off(except during exams) and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.”

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### CUNY POLICY ON ACADEMIC INTEGRITY

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### Tentative Schedule Spring 2020

<table>
<thead>
<tr>
<th>Date</th>
<th>Chapter</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 27</td>
<td></td>
<td><strong>Introduction and syllabus review</strong></td>
</tr>
<tr>
<td>Sept 1</td>
<td>1</td>
<td>Matter and Measurements (1.1-1.4)</td>
</tr>
<tr>
<td>Sept 3</td>
<td></td>
<td>Matter and Measurements (1.5-1.10)</td>
</tr>
<tr>
<td>Sept 8</td>
<td>2</td>
<td>Atoms and the Periodic Table (2.1-2.3)</td>
</tr>
<tr>
<td>Sept 10</td>
<td>2</td>
<td>Atoms and the Periodic Table (2.4-2.6)</td>
</tr>
<tr>
<td>Sept 15</td>
<td>2</td>
<td>Atoms and the Periodic Table (2.7-2.8)</td>
</tr>
<tr>
<td>Sept 17</td>
<td></td>
<td><strong>Quiz 1 (Chapters 1 and 2) 30 min</strong></td>
</tr>
<tr>
<td>Sept 17</td>
<td>3</td>
<td>Ionic Compounds (3.1-3.2)</td>
</tr>
<tr>
<td>Sept 22</td>
<td>3</td>
<td>Ionic Compounds (3.3-3.6)</td>
</tr>
<tr>
<td>Sept 24</td>
<td>4</td>
<td>Molecular compounds (4.1-4.4)</td>
</tr>
<tr>
<td>Oct 1</td>
<td>4</td>
<td>Molecular compounds (4.5-4.6)</td>
</tr>
<tr>
<td>Oct 6</td>
<td></td>
<td>Molecular compounds (4.7-4.8)</td>
</tr>
<tr>
<td>Oct 8</td>
<td></td>
<td><strong>Exam 1 (Chapters 1-4) 1 hour</strong></td>
</tr>
<tr>
<td>Date</td>
<td>No.</td>
<td>Topic</td>
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<tr>
<td>Oct 13</td>
<td></td>
<td>Chemical Reactions (5.1-5.2)</td>
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<tr>
<td>Oct 15</td>
<td>5</td>
<td>Chemical Reactions (5.3-5.4)</td>
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<tr>
<td>Oct 20</td>
<td></td>
<td>Chemical Reactions (5.5-5.6)</td>
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<tr>
<td>Oct 22</td>
<td></td>
<td>Chemical Reactions (5.7-5.10)</td>
</tr>
<tr>
<td>Oct 27</td>
<td></td>
<td>Quiz 2 (Chapter 5) 30 min.</td>
</tr>
<tr>
<td>Oct 27</td>
<td>6</td>
<td>Energy Changes, Reaction Rates, and Equilibrium (6.1-6.4)</td>
</tr>
<tr>
<td>Oct 29</td>
<td>7</td>
<td>Energy Changes, Reaction Rates, and Equilibrium (6.5-6.6)</td>
</tr>
<tr>
<td>Nov 3</td>
<td></td>
<td>Gases, Liquids, and Solids (7.1-7.3)</td>
</tr>
<tr>
<td>Nov 5</td>
<td>7</td>
<td>Gases, Liquids, and Solids (7.4-7.6)</td>
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<tr>
<td>Nov 10</td>
<td></td>
<td>Gases, Liquids, and Solids (7.7-7.8)</td>
</tr>
<tr>
<td>Nov 12</td>
<td></td>
<td>Gases, Liquids, and Solids (7.9-7.10)</td>
</tr>
<tr>
<td>Nov 17</td>
<td></td>
<td>Exam 2 (Chapters 5-7) 1 hour</td>
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<tr>
<td>Nov 19</td>
<td>8</td>
<td>Solutions (8.1-8.4)</td>
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<tr>
<td>Nov 24</td>
<td></td>
<td>Solutions (8.5-8.8)</td>
</tr>
<tr>
<td>Dec 1</td>
<td>9</td>
<td>Acids and Bases (9.1-9.4)</td>
</tr>
<tr>
<td>Dec 3</td>
<td></td>
<td>Acids and Bases (9.5-9.9)</td>
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<tr>
<td>Dec 8</td>
<td></td>
<td>Quiz 3 (Chapters 8-9) 30 min</td>
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<tr>
<td>TBA</td>
<td></td>
<td>Review</td>
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<tr>
<td></td>
<td></td>
<td>Final Exam (Chapters 1-9) 2 hours.</td>
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</tbody>
</table>
Tentative Schedule for Chemistry 101.3, Section 01, Fall 2020

**Tentative Quizzes schedule:**

- Quiz 1: Thursday, September 17, 2020
- Quiz 2: Tuesday, October 27, 2020
- Quiz 3: Tuesday, December 8, 2020

**Tentative Exam schedule:**

- Exam 1: Thursday, October 8, 2020 (Chapters 1-4)
- Exam 2: Tuesday, November 18, 2020 (Chapters 5-7)
- Final Exam: TBA (Cumulative, Chapters 1-10)

**Tentative Extra Credit (EC) Due Dates schedule:**

- EC 1: Tuesday, September 8, 2020 (Chapters 1 - Measurements)
- EC 2: Thursday, September 24, 2020 (Chapter 3 – Ionic Compounds)
- EC 3: Tuesday, October 27, 2020 (Chapter 5 – Chemical Reactions)
- EC 4: Tuesday, November 1, 2020 (Chapter 6 – Rate and Equilibrium)
- EC 5: Thursday, December 1, 2020 (Chapter 8 – Solutions)

**CLASS POLICIES**

Attendance: You are required to attend all exams, lectures, and quizzes which will all start promptly. NO MAKE-UP QUIZZES OR EXAMINATIONS will be provided. It is your responsibility to contact the lecturer (Prof. Binyaminov) BEFORE the meeting if you cannot be present for an exam or quiz. If using email, notification a MINUMUM of 3 hours prior to the meeting is required. WRITTEN (NOT E-MAIL!) documentation (i.e. Doctor’s note) is then required at the next class meeting to avoid a grade of ZERO (0).

Note also that all on-line homework assignments will have a deadline date.
Academic Dishonesty: Academic dishonesty is one of the most serious offenses within the academic community. Acts of academic dishonesty include, but are not limited to, plagiarism and/or cheating on exams and papers, sabotage of research materials, the purchase or sale of academic papers, and falsification of records. Any student who engages in an activity that is academically dishonest is subject to disciplinary charges, as is any student who knowingly aids another who engages in them. The City University Policy on Academic Dishonesty was adopted by CUNY’s Board of Trustees in June 2004; it includes definitions and examples of academic dishonesty, methods for promoting academic integrity, and procedures for the imposition of sanctions for various violations of this policy, including failing grades, suspension, and expulsion. If you read the syllabus this far, email me the word ”Agree” to receive five extra points on your first quiz, by Monday, August 31, 2020.

FAQ

1. How do I prepare for each Chem. 1013 lecture class?

- Print out the Power Point slides (posted on google classroom) prior to each class.
- Have the text book and a scientific calculator in front of you for each class.
- Read the text book chapter to be covered during lecture prior to class.
- Complete the ALEKS Online homework objectives by the due date. For additional practice problems, try the recommended text book problems for each chapter. Use the Study Guide (posted on CUNY Blackboard) to check your responses to each problem. Note the problems that you had trouble with and/or would like to focus on during recitation.

2. How do I study for Chem. 1013?

- Learn how to use a scientific calculator. Practice basic mathematical skills involving decimals, fractions, exponents, and percentages.
- Read the textbook before (or at least after) attending the lecture.
- Make short summary notes or an outline for each chapter. Allocate time to reread old chapter summaries even as we progress to newer chapters. Constant repetition is necessary to remember Chemistry!
- Practice assigned problems first and practice more from the book if possible. Look into the solution manual or get help only if you cannot solve on your own after several attempts.

3. How can I contact you if I can't come during office hours?

You can send me email. I will try to answer your question ASAP, or suggest some alternate time to meet you. If you did not get email response within one business day, ask me in person before or after the scheduled class.
4. *I am failing in this course in spite of studying. Can you help me?*

   If you wish to discuss your performance in this course, you must bring with you all your handwritten notes, solutions to assigned problems, and other evidence to show that you studied hard for the course. After analyzing your methods of studying, I can suggest improvements.

   I cannot help those who do not have the time to complete these minimum required tasks in this course.

5. *Do you curve exam scores?*

   NO

6. *Is the class average maintained "C+"?*

   No, I do not scale up or down to maintain a "C+" average. Generally, the 'A' range is 90+, the 'B' range is 80+, the 'C' range is 70+, & 'D' is 60+. In other words, a score of 90 and above guarantees at least an 'A-' and so on. Therefore, you need to concentrate only on your raw overall score to improve your grade.

7. *Can I do a term paper or other additional work to improve my grade?*

   NO.

8. *I am absent for a long time due to some medical/family/emergency/other reason. Can I still pass the class?*

   If you miss more than one exam, it will be very difficult. Talk to the Registrar's office ASAP and take proper administrative action to protect your interests.
Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

TEXT: Bettelheim/Landesberg - Bundle: Custom Organic Chem Lab, 8th + Custom OWLv2 for Bettelheim/Brown/Campbell/Farrell/Torres' Introduction to General, Organic, and Biochemistry, 1 term Printed Access Card.


http://www.cengagebrain.com/course/4679552

Course Coordinator:  Olga Binyaminov

Olga.Binyaminov@qc.cuny.edu

Section  1011 (section-4): Wednesday 9:10am-12:00pm

Instructor:  Prof. Ross Greenberg

Email:  Ross.greenberg@qc.cuny.edu

Course description:

Introduction to a variety of basic chemistry methods including density, reactivity, and titration used to examine chemical reaction processes.

Grading

OWL Pre-Lab Assignment: 15%

Pre-lab assignment must be completed and submitted on owl prior to the beginning of the class, as indicated by the due dates on the owl sites.

In addition, you are expected to be familiar with the general topic of the lab that is going to be discussed. In order to do so, you will need to read the lab write-up prior to your session zoom meeting. Failure to do so will result in zero participation grade

Virtual / Online Video (EdPuzzle) Labs: 40%

You will still meet with your lab instructor at the time of your scheduled session, and will receive further instructors regarding either of the labs.
Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

There are 2 types of labs to be done this semester:

**Virtual – labs:** These are labs that are done virtually, as if you are in the class doing the labs. Upon completion of the virtual labs you will be able to save your report sheet, that need to be submitted on google classroom for grading. All virtual Labs are set on Connect (McGraw Hills Education)

**Online Videos (EdPuzzle)** – The EdPuzzle videos can be accessed through google classroom and will be available as listed on the syllabus. During the video you will be asked questions that will be graded as your report. You will need to submit a written data (which you will be instructed as per what needs to be done), and / or solved problems pertain to the lab. It will be graded by your instructor and edited to your gradebook.

**OWL Post-Lab Assignment: 15%**

Post-lab assignment must be completed and submitted on owl/connect after the lab is done and prior to next lab meeting.

**Weekly Quizzes: 20%**

You will have a quiz for each preformed lab on the following session. Each quiz will start at the beginning of your session time and will be 30 min long. Be on time to get the full time, otherwise your quiz will end exactly after 30 min from the time the class started.

Quizzes are all on owl and you must be live on zoom to take it, as it is password protected and wont initiate until you are confirmed on zoom.

No makeup is given for missed quizzes.

Below is the required setup during the quizzes. Failure to do so will result in a zero on your quiz, and inability to take the quiz.
Laboratory class participation in synchronous scheduled meetings: 10%

You will be graded on your class performance, and it is 10% of your lab grade. These 10% include your participation in online sessions and discussions.

**Required tools and accounts:**

- **Zoom account:**
  Go to zoom.us, and register for a free account.
  When joining a meeting, click on join a meeting tab, and enter the meeting ID.
  
  Meeting ID: 815 9853 5272
  Passcode: 410885

- **An active Queens College email account**

- **Cengage Owl account:**
  You will need a Cengage account for some of the pre and post assignments, as well as for midterm and final exam.
  Register to cengage.com and enter the following code E-26R68T8G8X8GSD for your class. See guide for Cengage registration in google classroom. The bookstore sells this book at a different (higher) price than the one negotiated with Cengage. Use the following link to get a discounted price for the OWL. [http://www.cengagebrain.com/course/4679552](http://www.cengagebrain.com/course/4679552)

- **Connect account:**
  Connect (McGraw Hills) account is used for Virtual Labs and LearnSmart Asynchronous labs. You will also have some pre and post assignments posted on Connect, as listed on syllabus.
  To register, go to [https://connect.mheducation.com/class/r-greenberg-fall-2020---r-greenberg-1011-chemistry-lab-1](https://connect.mheducation.com/class/r-greenberg-fall-2020---r-greenberg-1011-chemistry-lab-1)
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Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

Tentative Schedule:

The instructor can make changes to the syllabus and the students will be notified in writing of such changes.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Experiment</th>
<th>Lab Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>August 31, 2020</td>
<td>Check-in, #1 – Lab Safety, How to use a Bunsen Burner</td>
<td>EdPuzzle</td>
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<tr>
<td>2</td>
<td>September 14, 2020</td>
<td>#2 – Lab Skills (Measurement)</td>
<td>Connect</td>
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<tr>
<td>3</td>
<td>September 21, 2020</td>
<td>#3 - Conversion Factors</td>
<td>Connect</td>
</tr>
<tr>
<td>4</td>
<td>September 29, 2020**</td>
<td>#4 – Density Determination</td>
<td>Connect</td>
</tr>
<tr>
<td>5</td>
<td>October 5, 2020</td>
<td>#5 – Determination of the formula of a Metal Oxide</td>
<td>EdPuzzle</td>
</tr>
<tr>
<td>6</td>
<td>October 14, 2020 **</td>
<td>#6 – Water of hydration</td>
<td>EdPuzzle</td>
</tr>
<tr>
<td>7</td>
<td>October 19, 2020</td>
<td>#7 - Calorimetry</td>
<td>Connect</td>
</tr>
<tr>
<td>8</td>
<td>October 26, 2020</td>
<td>#8A - Types of Reactions – Reactions in Solution</td>
<td>Connect</td>
</tr>
<tr>
<td>9</td>
<td>November 2, 2020</td>
<td>#8B - Types of Reactions – Reactions in Solution</td>
<td>EdPuzzle</td>
</tr>
<tr>
<td>10</td>
<td>November 9, 2020</td>
<td>#9 – Kinetics - Factors affection Rate of Reactions</td>
<td>Connect</td>
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<tr>
<td>11</td>
<td>November 16, 2020</td>
<td>#10 – Equilibrium</td>
<td>EdPuzzle</td>
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<tr>
<td>12</td>
<td>November 23, 2020</td>
<td>#11 – Gas Laws</td>
<td>Connect</td>
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<tr>
<td>13</td>
<td>November 30, 2020</td>
<td>#12 – Analysis of Vinegar by Titration</td>
<td>Connect</td>
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<tr>
<td>14</td>
<td>December 7, 2020</td>
<td>Check-out / Final Quiz</td>
<td></td>
</tr>
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Important Dates:

- September 7 is a Labor Day – No Classes
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- Oct 12 – Columbus Day – No Classes
Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

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- November 25 – Wednesday with Friday Schedule
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Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

TEXT: Bettelheim/Landesberg - Bundle: Custom Organic Chem Lab, 8th + Custom OWLv2 for Bettelheim/Brown/Campbell/Farrell/Torres' Introduction to General, Organic, and Biochemistry, 1 term Printed Access Card.


Course Coordinator: Olga Binyaminov
Olga.Binyaminov@qc.cuny.edu

Section: 1011 (Section 1)

Instructor: O. Binyaminov

Email: Olga. Binyaminov

Course description:
Introduction to a variety of basic chemistry methods including density, reactivity, and titration used to examine chemical reaction processes.

Grading

OWL Pre-Lab Assignment: 15%
Pre-lab assignment must be completed and submitted on owl prior to the beginning of the class, as indicated by the due dates on the owl sites.

In addition, you are expected to be familiar with the general topic of the lab that is going to be discussed. In order to do so, you will need to read the lab write-up prior to your session zoom meeting. Failure to do so will result in zero participation grade

Virtual (Asynchronous) / Online Video (Synchronous) Labs : 40%
You will still meet with your lab instructor at the time of your scheduled session, and will receive further instructors regarding either of the labs.

There are 2 types of labs to be done this semester:

Virtual – Asynchronous labs: These are labs that are done virtually, as if you are in the class doing the labs. Upon completion of the virtual labs you will be able to save your report sheet, that need to be submitted on google classroom for grading.

Online Videos (EdPuzzle) – Synchronous – The EdPuzzle videos can be accessed through google classroom and will be available as listed on the syllabus. During the video you will be asked questions that will be graded as your report. You will
need to submit a written data (which you will be instructed as per what needs to be done), and / or solved problems pertain to the lab. It will be graded by your instructor and edited to your gradebook.

OWL Post-Lab Assignment: 15%

Post-lab assignment must be completed and submitted on owl/connect after the lab is done and prior to next lab meeting.

Weekly Quizzes: 20%

You will have a quiz for each preformed lab on the following session. Each quiz will start at the beginning of your session time and will be 30 min long. Be on time to get the full time, otherwise your quiz will end exactly after 30 min from the time the class started.

Quizzes are all on owl and you must be live on zoom to take it, as it is password protected and wont initiate until you are confirmed on zoom.

No makeup is given for missed quizzes.

Below is the required setup during the quizzes. Failure to do so will result in a zero on your quiz, and inability to take the quiz.
Lab class participation in synchronous and asynchronous scheduled meetings: 10%

You will be graded on your class performance, and it is 10% of your lab grade. These 10% include your participation in online sessions and discussions.

Required tools and accounts:

- **Zoom account**
  
  Go to zoom.us, and register for a free account.

  When joining a meeting, click on join a meeting tab, and enter the meeting ID above.

  Alternatively, you may use the following link:
  
  https://us02web.zoom.us/j/85491867909?pwd=b0NlbW51cXZCRVVJQkVkJ0QT09

  Meeting ID: **85491867909**

  Password: **Lab**

- **An active Queens College email account**

- **Blackboard account:**

- **Cengage Owl account:**

  You will need a Cengage account for some of the pre and post assignments, as well as for midterm and final exam.

  Register to cengage.com. and enter the following code ______________ for your class. See guide for Cengage registration in google classroom.

- **Connect account:**

  Connect (McGraw Hills) account is used for Virtual Labs and LearnSmart

  Asynchronous labs. You will also have some pre and post assignments posted on Connect, as listed on syllabus.

  To register, go to _____________________________________________________________________________

  You can also register to the class directly using the following URL:
Google Classroom Registration:

Go to gdrive.qc.cuny.edu

Login with your CAMS account (looks like jsmith100,) if you have forgotten your username or password- go here: cams.qc.cuny.edu.

(Accept terms and conditions if it's your first time logging in).

Go to Classroom.google.com, (Identify as a student).

Click the + button on the top right.

Add the course code. The code for this class is “vvp3vrd” or use this link https://classroom.google.com/u/3/c/MTQyNjMyNzUwMDMy?cjc=vvp3vrd

Troubleshooting-

After logging in, it won't let you add the class.
A: Sometimes it switches you back to your personal Google account if you have more than one logged in at a time. Open the account switcher by clicking on your initial or profile picture in the top right and enter your QC account.

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CUNY POLICY ON ACADEMIC INTEGRITY

Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/. Please read this document, paying careful attention to the sections on plagiarism.
and Internet plagiarism. If you are not sure how to cite work you have found on the internet, please review the APA Guidelines provided by the Purdue OWL.

**Tentative Schedule:**

The instructor can make changes to the syllabus and the students will be notified in writing of such changes.

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**TEXT:** Bettelheim/Landesberg - Bundle: Custom Organic Chem Lab, 8th + Custom OWLv2 for Bettelheim/Brown/Campbell/Farrell/Torres' Introduction to General, Organic, and Biochemistry, 1 term Printed Access Card.


http://www.cengagebrain.com/course/4679552

**Course Coordinator:** Olga Binyaminov

Olga.Binyaminov@qc.cuny.edu

**Section**

1011 (section-4): Wednesday 9:10am-12:00pm

**Instructor:** Prof. Ross Greenberg

**Email:** Ross.greenberg@qc.cuny.edu

**Course description:**

Introduction to a variety of basic chemistry methods including density, reactivity, and titration used to examine chemical reaction processes.

**Grading**

**OWL Pre-Lab Assignment: 15%**

Pre-lab assignment must be completed and submitted on owl prior to the beginning of the class, as indicated by the due dates on the owl sites.

In addition, you are expected to be familiar with the general topic of the lab that is going to be discussed. In order to do so, you will need to read the lab write-up prior to your session zoom meeting. Failure to do so will result in zero participation grade

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Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

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**Required tools and accounts:**

- **Zoom account:**
  
  Go to zoom.us, and register for a free account.

  When joining a meeting, click on join a meeting tab, and enter the meeting ID.

  Meeting ID: 815 9853 5272

  Passcode: 410885

- **An active Queens College email account**

- **Cengage Owl account:**

  You will need a Cengage account for some of the pre and post assignments, as well as for midterm and final exam.

  Register to cengage.com and enter the following code **E-26R68T8GX8GSD** for your class. See guide for Cengage registration in google classroom. The bookstore sells this book at a different (higher) price than the one negotiated with Cengage. Use the following link to get a discounted price for the OWL. [http://www.cengagebrain.com/course/4679552](http://www.cengagebrain.com/course/4679552)

- **Connect account:**

  Connect (McGraw Hills) account is used for Virtual Labs and LearnSmart Asynchronous labs. You will also have some pre and post assignments posted on Connect, as listed on syllabus.

  To register, go to [https://connect.mheducation.com/class/r-greenberg-fall-2020---r-greenberg-1011-chemistry-lab-1](https://connect.mheducation.com/class/r-greenberg-fall-2020---r-greenberg-1011-chemistry-lab-1)
Department of Chemistry and Biochemistry  
Queens College CUNY  
Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

- **Google Classroom Registration:**
  
  Go to gdrive.qc.cuny.edu
  
  Login with your CAMS account (looks like jsmith100,) if you have forgotten your username or password- go here: cams.qc.cuny.edu).
  
  (Accept terms and conditions if it's your first time logging in).
  
  Go to Classroom.google.com, (Identify as a student).
  
  Click the + button on the top right.
  
  Add the course code. The code for this class is “5udkb45”

  **Troubleshooting-**

  After logging in, it won't let you add the class.
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**ONLINE ENVIRONMENT**

Students should be seated at a table or desk in a quiet room. The video for the Zoom meeting should be on although it may be muted for short periods when appropriate. The mic to the Zoom meeting should be muted unless asking or answering a question in class. Students should not attend the Zoom lecture meeting while in bed, driving in a car, from a bus, or anywhere else that would not constitute a collegiate environment.

**Recording a session**

All sessions will be recorded, and shared on google classroom for your review. Please read and acknowledge the following disclaimer. You will be required to consent to this disclaimer during our first session, by typing “agree” in zoom chat.

“Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are
unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off (except during exams) and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.”

**QUIZ AND EXAM SETUP**

Note: During quizzes and exams, students will be required have two online devices, one of which has a functional camera. The device with a camera can be a smartphone. The camera device should join the Zoom meeting with video on, mic off, and be set up to the side of the student with the camera aimed towards the keyboard, hands, materials, and screen of the device the student is taking the exam on (please see image below). This requirement is essential to insure the identity and integrity of all students taking the online assessments. Communication with the instructor during quizzes and exams can be conducted via private online chat through the meeting platform (i.e. Zoom). Students may not search the internet or communicate with anyone else during assessments, personally or electronically, as this would constitute a violation of academic integrity.

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Tentative Lecture Schedule for Chemistry 1011, Section 01, Fall 2020

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Queens College of the City University of New York

Dr. Gloster
Department of Chemistry and Biochemistry

Basic Organic Chemistry

WEDNESDAY 6:30-9:20 ONLINE CLASSROOM MEETING
WEDNESDAY 5:30-6:20 ONLING OFFICE HOUR

e-mail: daniel.gloster@qc.cuny.edu

Chem 102.3-2

Course Requirements:
Prerequisites for Chem 102.3: C or better in Chem 101.3 and 101.1, or C or better in Chem 113.4 and 113.1F

Pre or corequisite: Chem 102.1 (C or better if prerequisite)

Note: a C- in any prerequisite will not permit you to take 102.3/102.1!

You must earn a C or better in Chem 102.3 and 102.1 to take Chem 103.3 and 103.1

You will need access to Blackboard for handouts - it is your responsibility to provide a valid e-mail address that you monitor. Announcements will be made via Blackboard and e-mail.

Classroom Meeting Weekly each Wednesday 6:30-9:20 PM. Computer Link and telephone access information pasted below.

https://us.bbcollab.com/guest/de232e80d3b442a9b32ada765eaf4f25

Classroom Dial In Information:
+1-571-392-7650
PIN: 148 156 3941

Office hour Weekly each Wednesday evening 5:30 to 6:20 PM. Computer Link and telephone access pasted below.

https://us.bbcollab.com/guest/e4f3bacc0c8f47cea287d670f7e4b90f

Office Hour Dial In Information
+1-571-392-7650
PIN: 606 622 3324

*************** Classroom and Office Hour Links are NOT the same***********************
Information about recorded online classes and office hours

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image.

Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.


Molecular model kit (from Amazon for about $25 look fine, such as MMS-008 and MM-003)

Required (if you’re taking the lab portion) LAB TEXT: Laboratory Experiments for Introduction to General, Organic and Biochemistry, F. Bettelheim and J. Landesberg, 8th Edition, Brooks/Cole, 2013

REQUIRED ON-LINE PROBLEMS: You are required to purchase access to the Sapling Learning on-line problem web site for this course. The cost is $42. The course is listed under "Here is a direct link to your course site: Queens College - CHEM 102 - Fall20 - GLOSTER

BEGIN STUDENT REGISTRATION INSTRUCTIONS

STUDENT INSTRUCTIONS

1. Go to www.saplinglearning.com/login to create an account. If you already have a Macmillan Learning account you can log in with your existing credentials and skip to step 3.
   o Create your password and set all three security questions.
   o Start typing in your institution to select from the options that appear in the Primary Institution or School name field. If your institution does not appear you can add it by typing in the full name.
   o Accept the terms of use and click “Sign Up”.
   o Check your email for the confirmation link to complete your registration and return to the login page.
2. Set your institution by searching using your institution’s full name and selecting the appropriate option from the menu that appears.

3. Under Enroll in a new course, you should see Courses at [Your College]. Click to expand this list and see courses arranged by subject. Click on a subject to see the terms that courses are available.

4. Click on the term to expand the menu further (note that Semester 1 refers to the first course in a sequence and not necessarily the first term of the school year).

5. Once the menus are fully expanded, you’ll see a link to a specific course. If this is indeed the course you’d like to register for, click the link.

6. If applicable, to access your ebook click on the image of the cover on the right sidebar of your course site. Create an account, or log in with an existing Macmillan Learning eBook account.

7. Need Help? Our technical support team can be reached by phone, chat, or by email via the Student Support Community. To contact support, please open a service request by filling out the webform: https://macmillan.force.com/macmillanlearning/s/

The following link includes more detailed instructions on how to register for your course: https://macmillan.force.com/macmillanlearning/s/article/Sapling-Learning-Registering-for-courses

More from the Sapling Homework Team:

(http://www.saplinglearning.com/ibiscms/course/view.php?id=104909). Problems will be graded at the deadlines listed on the syllabus and the Sapling web site. For each problem there are hints and answers; you can take as many tries as necessary to get the correct answer. There is a training module to help you learn this homework system that you should complete before you start on the chapter problems. As you can see, there is no good reason not to earn all of the homework points.

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Sapling Learning offers a grace period on payment but payment must be made by, 9/09/20.

During sign up or throughout the term, if you have any technical problems or grading issues, send an email to College Student Support Community, https://community.macmillan.com/community/digital-product-support/college-students-support-community, explaining the issue.

NEED HELP WITH ON-LINE PROBLEMS? Here is our Student Support information:
- General student support contact information and hours: https://community.macmillan.com/docs/DOC-6915-students-still-need-help
- How to ask a question or create a case: https://community.macmillan.com/docs/DOC-6673-can-i-contact-tech-support-and-others-for-help-without-leaving-the-support-community
Grading

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<td>On-line Homework</td>
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**The final exam**

Will cover all of the chapters listed in the syllabus.

Exams will stress lecture material and recitation problems. Bring photo ID to exams.

You will not be permitted to use books, molecular models, notes, computers, or calculators during exams. Cell phones are strictly prohibited for class and exams. If you have any questions concerning the grading, see Dr. Gloster within 10 days following the exam.

There are no make-up exams. If you are ill or there is an emergency, you must notify me by email before the exam. Written verification of your reason for missing an exam is required within 10 days; if your absence is excused your grade will be based on the exams you have taken. If your absence is unexcused you will be awarded a zero for that exam which will count into your final grade.

**APPROXIMATE SCHEDULE AND PROBLEMS.** The text contains many problems similar to those that will be given on exams. You should do the problems that appear in the body of the text. Selected answers may be found in the Study Guide; there will not be any graded homework other than the on-line...
Approximate Schedule and Problems

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<thead>
<tr>
<th>Date</th>
<th>Chpt</th>
<th>Topic</th>
<th>Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 26</td>
<td>12</td>
<td>Alkanes</td>
<td>12.22-32, 36, 37, 39, 40, 42-44, 46-53,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>58, 62-64a, b, 65</td>
</tr>
<tr>
<td>Sep 2</td>
<td>13</td>
<td>Alkenes, Alkynes, Aromatics</td>
<td>13 30, 32, 35-39, 42, 48, 50, 58-61,</td>
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<td></td>
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<td></td>
<td>65, 66-68, 69-70, 72, 74, 75, 79, 80, 82</td>
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<tr>
<td>Sep 9</td>
<td>14</td>
<td>Compounds with Oxygen, Sulfur, or a Halogen</td>
<td>14.21-29, 32a-d, 34, 35, 38, 40-52, 58, 63,</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>69-70</td>
</tr>
<tr>
<td>Sep 16</td>
<td></td>
<td>Exam 1 Chapters 12, 13, 14</td>
<td>Online H-work (12, 13, 14) due 9/16 at 3:00 PM</td>
</tr>
<tr>
<td>Sep 23</td>
<td>15</td>
<td>Aldehydes and Ketones</td>
<td>15.20-23, 25-32, 34-44, 51, 58, 59</td>
</tr>
<tr>
<td>Sep 30</td>
<td>16</td>
<td>Amines</td>
<td>16.23-25, 28-31, 34, 37-38, 41-42, 47, 55, 57</td>
</tr>
<tr>
<td>Oct 7</td>
<td>17</td>
<td>Carboxylic Acids and Derivatives</td>
<td>17.37, 43, 44, 46, 48, 54, 58, 62, 69, 72-74</td>
</tr>
<tr>
<td>Oct 21</td>
<td>18</td>
<td>Amino Acids and Proteins</td>
<td>18.36, 37, 41, 46-49, 56, 66, 70, 72,</td>
</tr>
<tr>
<td>Oct 28</td>
<td></td>
<td>Exam 2 Chapters 15, 16, 17</td>
<td>Online H-work (15, 16, 17) due 10/28 at 3:00 PM</td>
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<tr>
<td>Nov 4</td>
<td>20</td>
<td>Carbohydrates</td>
<td>20.28, 29, 32, 35-37, 44, 46, 50, 51-58</td>
</tr>
<tr>
<td>Nov 11</td>
<td>23</td>
<td>Lipids</td>
<td>23.30-33, 37, 38, 48, 49, 50, 60</td>
</tr>
<tr>
<td>Nov 18</td>
<td>26</td>
<td>Nucleic Acids</td>
<td>26.23, 24, 26, 29-32, 50</td>
</tr>
<tr>
<td>Dec 2</td>
<td></td>
<td>Catch-up (last lecture)</td>
<td></td>
</tr>
<tr>
<td>Dec 9</td>
<td></td>
<td>Exam 3 Chapters 18, 20, 23, 26 (last class)</td>
<td>Online H-work (18, 20, 23, 26) due 12/9 3:00 PM</td>
</tr>
<tr>
<td>Dec 16</td>
<td>6:15-8:15</td>
<td>Final Exam – ALL CHAPTERS</td>
<td></td>
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**Course Objectives:** Students will learn basic structural organic chemistry, including structures and nomenclature of hydrocarbons and compounds containing the most common functional groups including halides, alcohols, thiols and disulfides, amines, carbonyl compounds including aldehydes, ketones, carboxylic acids, esters, and amides, and an introduction to biological molecules including amino acids, proteins, carbohydrates, lipids, and nucleic acids. Stereochemistry will be introduced, and students will learn to draw structures and convey three-dimensional information about structures. Reactions of these compounds will be introduced, but mechanisms of reactions, synthesis, and spectroscopy will not be covered in this course. At the conclusion, students will have a foundation that will allow them to enter a course in basic molecular biochemistry.

**Assessment:** Problem solving ability will be tested using exams; while memorization of naming conventions and reactions will be required, the emphasis will be on understanding structures of organic compounds. Sample problems and answers both in the book and on the course web site will be representative of the material that will be found on exams.

**GRADE KEY.** This course is not graded on a curve. Everyone in the class can get an A, or everyone can get an F. There is no predetermined percentage of the class that will get any particular grade. The key for all exams is shown below.
A+ 97-100
A  93-96
A-  90-92
B+  87-89
B  83-86
B-  80-82
C+  77-79
C  73-76
C-  70-72
D+  67-69
D  60-66
F   0-59
Department of Chemistry and Biochemistry
Queens College CUNY

Tentative Lecture Schedule for Chemistry 1021, Section ____, Fall 2020

**Required Text:**  Bettelheim/Landesberg - Bundle: Custom Organic Chem Lab, 8th + Custom OWLv2 for Bettelheim/Brown/Campbell/Farrell/Torres' Introduction to General, Organic, and Biochemistry, 1 term Printed Access Card.


[http://www.cengagebrain.com/course/4334488](http://www.cengagebrain.com/course/4334488)

**Course Coordinator:**  Olga Binyaminov

Olga.Binyaminov@qc.cuny.edu

**Section:**  1012 ( ): Day at Time; Room RE .

**Lab Instructor:**  

**Email:**  

**Office Hour:**  

**Course Objectives:**

Students will learn basic organic laboratory techniques including isolation and purification of organic compounds, and identification of organic compounds using chromatography and chemical tests; problem solving via understanding the use of the analytical tests is emphasized. Structural organic chemistry, which is a major focus of the lecture part of the course, will be covered in a molecular models session. Students will learn to carry out basic preparations of compounds and mixtures. At the conclusion, students will have a foundation that will allow them to carry out basic organic laboratory procedures, they will know how to keep an organic laboratory notebook, and they will know basic safety procedures including handling of hazardous waste.
Course Requirements:

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Prerequisites for Chemistry 102.1: C or better in Chemistry 101.3 and 101.1, or C or better in Chemistry 113.4 and 113.1

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Chemistry 102.1 Grading Rubric

OWL Pre-Lab Assignment: 15%

Pre-lab assignment must be completed and submitted on owl prior to the beginning of the class, as indicated by the due dates on the owl sites.

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Virtual / Online Video Labs: 40%

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Department of Chemistry and Biochemistry  
Queens College CUNY  
Tentative Lecture Schedule for Chemistry 1021, Section ____ , Fall 2020

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  Go to zoom.us, and register for a free account.

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  ____________________________

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  You will need a Cengage account for some of the pre and post assignments, as well as for midterm and final exam.

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Go to gdrive.qc.cuny.edu

Login with your CAMS account (looks like jsmith100,) if you have forgotten your username or password- go here: cams.qc.cuny.edu).

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QUIZ AND EXAM SETUP

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Department of Chemistry and Biochemistry
Queens College CUNY

Tentative Lecture Schedule for Chemistry 1021, Section ____, Fall 2020

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CUNY POLICY ON ACADEMIC INTEGRITY

Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/. Please read this document, paying careful attention to the sections on plagiarism and Internet plagiarism. If you are not sure how to cite work you have found on the internet, please review the APA Guidelines provided by the Purdue OWL.
# Weekly Experiment Schedule – Fall 2020

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<tr>
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Department of Chemistry and Biochemistry
Queens College CUNY

Tentative Lecture Schedule for Chemistry 1021, Section ____, Fall 2020

Important Dates:

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• September 28 - No Classes
• September 29 – Tuesday with Monday schedule.
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Tentative Lecture/Lab Schedule for Chemistry 1021, Section __1&3__, Fall 2020

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**Course Coordinator:** Olga Binyaminov

Olga.Binyaminov@qc.cuny.edu

**Section:** 1012 Section 1 Tues: 1:40 – 4:30pm via Google Classroom

1012 Section 3 Thurs: 1:40 – 4:30pm via Google Classroom

**Lab Instructor:** Dr. Md Gias Uddin

**Email:** mdgias.uddin@qc.cuny.edu

**Office Hour:** Sec 1: Tue; 4:30 – 5:30pm via ZOOM

Sec 3: Thur; 4:30 – 5:30pm via ZOOM

**ZOOM Link:** [https://zoom.us/j/3632772917](https://zoom.us/j/3632772917) Meeting ID: 363 277 2917
Department of Chemistry and Biochemistry
Queens College CUNY

Tentative Lecture/Lab Schedule for Chemistry 1021, Section __1&3__, Fall 2020

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Students will learn basic organic laboratory techniques including isolation and purification of organic compounds, and identification of organic compounds using chromatography and chemical tests; problem solving via understanding the use of the analytical tests is emphasized. Structural organic chemistry, which is a major focus of the lecture part of the course, will be covered in a molecular models session. Students will learn to carry out basic preparations of compounds and mixtures. At the conclusion, students will have a foundation that will allow them to carry out basic organic laboratory procedures, they will know how to keep an organic laboratory notebook, and they will know basic safety procedures including handling of hazardous waste.

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Department of Chemistry and Biochemistry  
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Tentative Lecture/Lab Schedule for Chemistry 1021, Section __1&3__, Fall 2020

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Department of Chemistry and Biochemistry
Queens College CUNY

Tentative Lecture/Lab Schedule for Chemistry 1021, Section __1&3__, Fall 2020

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Password: _____________________________

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Department of Chemistry and Biochemistry  
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**QUIZ AND EXAM SETUP**
Department of Chemistry and Biochemistry
Queens College CUNY

Tentative Lecture/Lab Schedule for Chemistry 1021, Section __1&3 __, Fall 2020

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- November 26-November 29 – Thanksgiving break - No Classes
Department of Chemistry and Biochemistry  
Queens College CUNY  

Tentative Lecture/Lab Schedule for Chemistry 1021, Section __1&3__, Fall 2020  

- December 9 Last day of classes
TEXT:


*OWL registration code: [http://www.cengagebrain.com/course/4683557](http://www.cengagebrain.com/course/4683557)*

Course Coordinator:

Olga Binyaminov  
[Olga.Binyaminov@qc.cuny.edu](mailto:Olga.Binyaminov@qc.cuny.edu)

Instructor:  
Olga Binyaminov  
Email: [Olga.Binyaminov@qc.cuny.edu](mailto:Olga.Binyaminov@qc.cuny.edu)

Class Hours:  
Tuesday 1:40pm-4:30 pm

Course description:

Introduction to a variety of basic biochemical methods including enzymology, colorimetry, and chromatography used to examine metabolic processes.

Prerequisite:

A grade of C or better in Chemistry 102.3 and 102.1; corequisite: Chemistry 103.3.

Course objectives:

This course provides an introduction to the use of chemical methods to measure and characterize biologically important molecules. After taking this course students should

- be familiar with biochemical techniques such as chromatography and spectrophotometry
- have experience in the extraction, resolution, and identification of biochemicals from biological samples
- understand how to use qualitative analytical techniques to resolve and characterize biologically important molecules such as proteins
- be able to use quantitative analytical techniques to measure quantities and concentrations of biochemicals
Department of Chemistry and Biochemistry  
Queens College CUNY  
Tentative Lecture Schedule for Chemistry 103.1, Section 02, FALL 2020

Grading

**OWL / Connect Pre-Lab Assignment: 15%**

Pre-lab assignment must be completed and submitted on owl / google classroom prior to the beginning of the class, as indicated by the due dates on the google classroom.

In addition you are expected to be familiar with the general topic of the lab that is going to be discussed.

**Virtual (Connect) / Online Video (EdPuzzle) Labs : 40%**

There are 2 types of labs to be done this semester:

Virtual – Connect- labs are done without the presence of the instructor, and are set on the connect website (see below for registration information). These are labs that are done virtually, as if you are in the class doing the labs. It will be graded automatically and saved onto your gradebook.

Online Videos – EdPuzzle – these are lab meetings through zoom, in which you will be shown a step by step or a video that shows the experiment. You will need to submit a written data (which you will be instructed as per what needs to be done), and / or solved problems pertain to the lab. It will be graded by me and edited to your gradebook.

**OWL / Connect Post-Lab Assignment: 15%**

Post-lab assignment must be completed and submitted on owl/connect after the lab is done and prior to next lab meeting.

**Midterm and Final: 20%**

These are not cumulative exams.

Midterm is given on October 19, 2020 at 1:40pm and will includes the experiments listed and done during weeks 1-6.

Final exam will be given during the last scheduled lab session, December 7, 2020, at 1:40 pm, and will include all labs performed after the midterm, weeks 8-13.

Both exams are going to be an hour long, online on OWL (cengage) and live on zoom, and will include basic concepts, techniques and objectives of the
experiments tested on. You must have the correct setup, as shown below, to be allowed to take the exam.

No makeup is given for missed midterm exam. If you miss one exam, your final exam score will be duplicated to replace the missed exam score.

Lab class participation in synchronous and asynchronous scheduled meetings: 10%

You will be graded on your class performance, and it is 10% of your lab grade. These 10% include your participation in online sessions and discussions.

Both the midterm and final must be taken live (on zoom) with the following setup to be done prior to exam.

Failure to do so will result in a zero on your exam.
Required tools and accounts:

- **Zoom account:**
  
  Go to cuny.zoom.us, and register for a free account.
  
  When joining a meeting, click on join a meeting tab, and enter the meeting ID above. Alternatively, you may use the following link:

  [https://zoom.us/j/94098056304?pwd=TDe4VklUcjLhQTIl6SW1Gck0zbXlKZz09](https://zoom.us/j/94098056304?pwd=TDe4VklUcjLhQTIl6SW1Gck0zbXlKZz09)

  Meeting ID: **940 9805 6304**

  Passcode: **053753**

- **An active Queens College email account**

- **Cengage Owl account:**
  
  You will need a Cengage account for some of the pre and post assignments, as well as for midterm and final exam.

  Register to cengage.com. and enter the following code **E-26R65WKK78MTT** for your class. See guide for Cengage registration in google classroom.

- **Connect account**
  
  Connect (McGraw Hills) account is used for Virtual Labs and LearnSmart Asynchronous labs. You will also have some pre and post assignments posted on Connect, as listed on syllabus.

  To register, go to [https://connect.mheducation.com/class/b-olga-fall-2020--cvsankar-1031-biochemistry-lab](https://connect.mheducation.com/class/b-olga-fall-2020--cvsankar-1031-biochemistry-lab)
Department of Chemistry and Biochemistry  
Queens College CUNY  
Tentative Lecture Schedule for Chemistry 103.1, Section 02, FALL 2020

Google Classroom Registration:

Go to gdrive.qc.cuny.edu

Login with your CAMS account (looks like jsmith100,) if you have forgotten your username or password- go here: cams.qc.cuny.edu).

(Accept terms and conditions if it's your first time logging in).

Go to Classroom.google.com, (Identify as a student).

Click the + button on the top right.

Add the course code. The code for this class is “ovlhc5m”

Troubleshooting-  

After logging in, it won't let you add the class.

A: Sometimes it switches you back to your personal Google account if you have more than one logged in at a time. Open the account switcher by clicking on your initial or profile picture in the top right and enter your QC account.

If you do not know CAMS account/password, go to cams.qc.cuny.edu and click forgot Username or Password.

ONLINE ENVIRONMENT

Students should be seated at a table or desk in a quiet room. The video for the Zoom meeting should be on although it may be muted for short periods when appropriate. The mic to the Zoom meeting should be muted unless asking or answering a question in class. Students should not attend the Zoom lecture meeting while in bed, driving in a car, from a bus, or anywhere else that would not constitute a collegiate environment.
Recording a session

All sessions will be recorded, and shared on google classroom for your review. Please read and acknowledge the following disclaimer. You will be required to consent to this disclaimer during our first session, by typing “agree” in zoom chat.

“Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off (except during exams) and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.”

QUIZ AND EXAM SETUP

Note: During quizzes and exams, students will be required have two online devices, one of which has a functional camera. The device with a camera can be a smartphone. The camera should join the Zoom meeting with video on, mic off, and be set up to the side of the student with the camera aimed towards the keyboard, hands, materials, and screen of the device the student is taking the exam on (please see image below). This requirement is essential to insure the identity and integrity of all students taking the online assessments. Communication with the instructor during quizzes and exams can be conducted via private online chat through the meeting platform (i.e. Zoom). Students may not search the internet or communicate with anyone else during assessments, personally or electronically, as this would constitute a violation of academic integrity.

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CUNY POLICY ON ACADEMIC INTEGRITY

Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/. Please read this document, paying careful attention to the sections on plagiarism and Internet plagiarism. If you are not sure how to cite work you have found on the internet, please review the APA Guidelines provided by the Purdue OWL.
# Tentative Lecture Schedule for Chemistry 103.1, Section 02, FALL 2020

*The instructor can make changes to the syllabus and the students will be notified in writing of such changes*

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lab Experiment</th>
<th>Source</th>
</tr>
</thead>
</table>
| 1    | September 1, 2020| Safety Video and Discussion                          | Zoom Live / Connect Virtual Lab  
Lab Safety Virtual Lab  
Lab Skills Learn Smart |
| 2    | September 8, 2020| Experiment 1: Spectrophotometer Fundamentals Learn Smart Part 1 and Part 2 | Zoom Live / Connect Virtual Lab  
Part 1 and Part 2  
(Lab Manual Pre Lab)  
(Lab Manual Post Lab) |
| 3    | September 15, 2020| Experiment 10: Carbohydrate Determination  
Virtual Labs: Test for sugars and Test for starch | Zoom Live / Connect Virtual Labs  
OWL Pre lab  
OWL Post Lab |
| 4    | September 22, 2020| Experiment 2: Vegetable Carotene Extraction         | Zoom Live / EdPuzzle Video  
Lab Manual Pre lab  
Lab Manual Post Lab |
| 5    | October 6, 2020  | Experiment 7: acid base properties of Amino Acids    | Zoom Live / EdPuzzle  
OWL Pre lab  
OWL Post Lab |
| 6    | October 13, 2020 | Experiment 8: Vitamin C                               | Zoom Live / EdPuzzle  
Lab Manual Pre lab  
Lab Manual Post Lab |
| 7    | October 20, 2020 | **Midterm Exam**  
Must be live on Zoom                             | Labs 1, 10, 2, 7 and 8  
1 hour long, OWL |
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Labs/Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>October 27, 2020</td>
<td>Enzyme Kinetics part 1 and 2</td>
<td>Connect Virtual Labs&lt;br&gt;Owl Pre Lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enzymes – Concentration and Activity</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>November 3, 2020</td>
<td>Enzyme Kinetics part 3 and 4</td>
<td>Connect Virtual Labs&lt;br&gt;Owl Post Lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enzymes – Temperature and pH</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>November 10, 2020</td>
<td>Experiment 6: Protein Assay</td>
<td>Zoom Live / Connect Virtual Lab&lt;br&gt;Lab Manual Pre Lab&lt;br&gt;Lab Manual Post Lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tests for Proteins</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>November 17, 2020</td>
<td>Experiment 9: Cell Respiration</td>
<td>Connect Virtual Lab&lt;br&gt;Owl Pre Lab&lt;br&gt;Lab Manual Post Lab</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Virtual Lab Connect</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>November 24, 2020</td>
<td>Experiment 4: Thin Layer Chromatography</td>
<td>Zoom Live&lt;br&gt;Owl Pre Lab (Due July 30)&lt;br&gt;Owl Post Lab (Due August 3)</td>
</tr>
<tr>
<td>13</td>
<td>December 1, 2020</td>
<td>Experiment 3: Size Exclusion Chromatography</td>
<td>Zoom Live&lt;br&gt;Lab Manual Pre Lab (Due August 3)&lt;br&gt;Lab Manual Post Lab (Due August 4)</td>
</tr>
<tr>
<td>14</td>
<td>December 8, 2020</td>
<td><strong>Final Exam</strong></td>
<td>Experiments 5, 6, 9, 4 and 3&lt;br&gt;1 hour long, Owl</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Must be live on Zoom</td>
<td></td>
</tr>
</tbody>
</table>

**Important Dates:**

- September 7 is a Labor Day – No Classes
- September 18-20 - No Classes
- September 28 - No Classes
- September 29 – Tuesday with Monday schedule.
- Oct 12 – Columbus Day – No Classes
- October 14 – Wednesday with Monday Schedule
- November 25 – Wednesday with Friday Schedule
- November 26-November 29 – Thanksgiving break - No Classes
- December 9 Last day of classes
Welcome to CHE 1134 where we will begin our exploration of the world of matter. After our semester together I hope you will see the world around you from a different perspective, from the perspective of a chemist. I hope that you will grow beyond the mere memorization of definitions to the realization that each definition is a model used to classify and explain matter and its changes; that every equation is the mathematical manifestation of the way chemists quantify matter and its changes. Chemistry isn’t about words and numbers, it’s about stuff, the stuff we and the rest of the world are made of.

The best way to contact me is by email: alexander.altman@qc.cuny.edu I will usually respond the same day. (Email will not be checked between Friday afternoon and Saturday night.)

Office hours will be held using Blackboard Collaborate Ultra on Tuesday from 4:30-5:30 PM. If you need to meet with me at a different time, email me to make an appointment.

You will need to have access to Aleks. See more information in “Guide to Using Aleks”

Text: Silberberg & Amateis; Chemistry: The Molecular Nature of Matter and Change, 9th ed, McGraw-Hill. You will get access to the eBook bundled with your access to Aleks. You can purchase a loose-leaf copy of the text from the publisher. (See the link in Aleks.)

Lectures will be delivered synchronously using Blackboard Collaborate on Tuesdays from 6:30 – 9:30 PM. Lectures will be recorded and available for viewing later in the day. Please make every effort to join in the lectures. I encourage students to ask questions via text message during the lecture. We can even have a dialog during lecture if needed. This is only possible if you are with us during the lecture.

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.
LECTURE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/1</td>
<td>Keys to the Study of Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>9/8</td>
<td>The Components of Matter</td>
<td>2</td>
</tr>
<tr>
<td>9/15</td>
<td>Stoichiometry of Formulas and Equations</td>
<td>3</td>
</tr>
<tr>
<td>9/22</td>
<td>Chemical Reactions</td>
<td></td>
</tr>
<tr>
<td>10/6</td>
<td>EXAM 1, Followed by lecture</td>
<td>4</td>
</tr>
<tr>
<td>10/13</td>
<td>Gases and the Kinetic-Molecular Theory</td>
<td>5</td>
</tr>
<tr>
<td>10/20</td>
<td>Thermochemistry</td>
<td>6</td>
</tr>
<tr>
<td>10/27</td>
<td>Quantum Theory and Atomic Structure</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Electron Configuration and Chemical Periodicity</td>
<td>8</td>
</tr>
<tr>
<td>11/3</td>
<td>EXAM 2, Followed by lecture</td>
<td></td>
</tr>
<tr>
<td>11/10</td>
<td>Models of Chemical Bonding</td>
<td>9</td>
</tr>
<tr>
<td>11/17</td>
<td>Models of Chemical Bonding (finish)</td>
<td>9</td>
</tr>
<tr>
<td>11/24</td>
<td>The Shapes of Molecules</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Theories of Covalent Bonding</td>
<td>11</td>
</tr>
<tr>
<td>12/1</td>
<td>EXAM 3, Followed by lecture</td>
<td></td>
</tr>
<tr>
<td>12/8</td>
<td>Open Chemistry Forum</td>
<td>All</td>
</tr>
<tr>
<td>12/15</td>
<td>Comprehensive final exam</td>
<td></td>
</tr>
</tbody>
</table>

As real life frequently happens, it may be necessary to change this schedule. If any changes are made you will be notified via Blackboard and email.

**Grade:** Your grade in the course is based solely on your demonstrated mastery of the material of Che 1134 assessed using the following instruments:
Hour Exams (3) = 40%; Recitation Quizzes = 20%; Aleks = 20%; Final Exam = 20%

A simple scientific calculator is required for this course. It should be able to handle scientific notation, square and cube roots and logarithms.

**Online Learning:** A key ingredient in your success in this course is keeping up with the course material. The Aleks learning system is there to help keep you on track. Part of your course grade is based on your timely mastery of the topics assigned online. Please be aware of the dates of the knowledge checks and of the goal dates. No extensions can be given for these dates. (See the guide to Aleks posted in Blackboard for more information.)

**Make-up exams:** Cannot be given.
**Academic Integrity:** Students are expected to maintain the highest standards of academic integrity in all aspects of the course. I strive to assess every student’s mastery of the course material fairly and accurately. I assume everything submitted by you represents your knowledge of the course material. If that isn’t true, it is impossible for me to do my job. I am sure that most of you are honest, hard-working students who appreciate the fact that grades are based on student achievement and that those few who attempt to get by dishonestly will not succeed. Any violations be treated seriously. For example, any violations observed during an exam can result in the student receiving a zero for that exam as well as disciplinary action from the College.

**Suggested Questions and Problems from Silberberg & Amateis; Chemistry; The Molecular Nature of Matter and Change 9th ed.** I will not be teaching you every topic in the textbook and you are only responsible for the material that I teach you. This list of questions and problems reflects the material that I plan to cover this semester. Any question in the textbook that is significantly different from the questions in this list is beyond the scope of this course and will not be showing up on any of our exams.

**Chapter 1:** 6, 15, 19, 20, 22, 24, 34, 36, 38, 42, 48, 50, 54, 55, 62, 64

**Chapter 2:** 1, 3, 4, 36, 37, 39, 41, 42, 44, 48, 54, 56, 57, 59, 61, 62, 63, 65, 66, 68, 69, 71, 73, 82, 83, 85, 89, 91, 92, 93, 98, 99, 102, 103, 107

**Chapter 3:** 1, 8, 14, 20, 32, 38, 40, 42, 55, 58, 60, 69, 70, 71, 73, 75, 81, 85

**Chapter 4:** 2, 3, 4, 9, 11, 13, 14, 16, 17, 22, 24, 26, 32, 34, 36, 39, 41, 43, 45, 47, 57, 59, 60, 65, 66, 69, 70, 78, 79, 80, 81, 82, 83, 84, 86, 90, 92, 94 and from chapter 2: 2.95 & 2.96

**Chapter 5:** 20, 24, 26, 28, 32, 49, 53, 57, 78 a&b, 61, 87, 88, 91.

**Chapter 6:** 9, 10, 15, 19, 20, 24, 25, 33, 35, 36, 37, 39, 45, 47, 49, 55, 56, 57, 59, 61, 63, 70, 72, 77, 78, 80, 82, 84

**Chapter 7:** 2, 9, 11, 14, 16, 20, 23, 48, 49, 55

**Chapter 8:** 6, 9, 11, 18, 23, 27, 29, 31, 46, 47, 48, 53, 55, 57, 59, 75, 77, 79, 87

**Chapter 9:** 8, 16, 17, 26, 30, 34, 35, 37, 44, 45, 50, 51, 53, 54, 55, 56, 58, 60, 61, 64, 66

**Chapter 10:** 1, 5, 6, 7, 8, 9, 11, 13, 14, 15, 17, 19, 26, 27, 28, 33, 34, 36, 40, 46, 48, 53, 55, 64

**Chapter 11:** 1, 3, 5, 7, 15, 21, 42
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<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Keys to the Study of Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>The Components of Matter</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>The Components of Matter, Stoichiometry of Formulas and Equations</td>
<td>2/3</td>
</tr>
<tr>
<td>4</td>
<td>Stoichiometry of Formulas and Equations</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Begin Ch. 4--------- <strong>Exam 1 (Ch 1-3)</strong></td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Three Major Classes of Chemical Reactions</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Gases and Kinetic-Molecular Theory</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Gases…… Thermochemistry: Energy Flow and Chemical Change</td>
<td>5/6</td>
</tr>
<tr>
<td>9</td>
<td>Thermochemistry: Energy Flow and Chemical Change</td>
<td>6</td>
</tr>
<tr>
<td>10</td>
<td>Begin Ch 7-------- <strong>Exam 2 (Ch 4-6)</strong></td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>Quantum Theory and Atomic Structure, Electron Configuration and Chemical Periodicity</td>
<td>7/8</td>
</tr>
<tr>
<td>12</td>
<td>Models of Chemical Bonding, The Shapes of Molecules</td>
<td>9/10</td>
</tr>
<tr>
<td>13</td>
<td>Begin Ch 11-------- <strong>Exam 3 (Ch 7-10)</strong></td>
<td>11</td>
</tr>
<tr>
<td>14</td>
<td>Theories of Covalent Bonding</td>
<td>11</td>
</tr>
<tr>
<td>15</td>
<td>Final Exam</td>
<td>Date: TBA</td>
</tr>
</tbody>
</table>
GENERAL CHEMISTRY I (Chemistry 113): Course Information, Fall 2020.

Required Text


Attendance

You are required to attend all examinations, lecture and all recitation sessions. You must obtain a doctor’s note or provide other written documentation if you miss an examination, or recitation because of sickness or any other circumstance. This note must be given to your recitation instructor. Grades of unofficial withdraw (WU) will be giving if your total absences in lecture/recitation exceeds 4 times.

You are required to sign an attendance sheet in lecture and recitation. The majority of questions posed on exams will parallel the way the material is presented in lecture. Past performance of students who do not regularly attend lecture is very poor. A grade of WU (unofficial withdraw) will be assigned if you miss 2 exams or have more than 4 absences from lecture.

Examinations

There will be three examinations given in lecture, and a comprehensive 2 hour Departmental final examination at the end of the course.

Recitations

Homework problems and general solving techniques are gone over during recitation. Homework should be done before coming to recitation. This is your opportunity to ask questions regarding problem solving. Quizzes will be given in recitation.

How to Study

Begin by reading the preface. These pages will describe the various learning aids in the textbook and will give you useful suggestions for studying chemistry.

It is particularly important that you

- Review each chapter before it is covered in lecture.
- Take a good set of lecture notes.
- Work out each problem-solving practice exercise as it appears in the text.

You should realize that because of limited time, many topics cannot be covered completely in lecture. You are expected to use your textbook to complement your lecture notes.
The Chemistry Department requires a grade of C (not C-) or better to advance to the next course. You must get at least a C in Chem 113 to advance to Chem 114.

What you need to memorize

Your mastery of chemistry depends in large part on your ability to understand concepts and apply your understanding to problem solving. However, you should not neglect the memorization of basic vocabulary, formulas, etc.

In particular you should learn:

- The names and symbols for elements in the main body of the periodic table up to element 89 (actinium).
- The formulas of common ions
- Names of the representative groups in the periodic table
- The rules for naming compounds and the names and formulas of common acids and bases
- Solubility rules/ using them to predict precipitation reactions
- Knowledge of reactions that produce gases
- Basic rules of assigning oxidation numbers
- Knowledge of the electromagnetic spectrum
- Trends of the periodic table
- Molecular geometry associated with VSEPR

Finally, take note of the following……..

- “Incomplete” grades are NOT given in chemistry courses.
- No extra projects will be given to compensate for poor exam grades.
- There are no make-up exams
- Don’t wait for the last few days to inform your instructor of missed labs, quizzes, etc.
- The last day to hand in overdue lab reports is the last day of lab class. Late reports will be severely penalized.
- If you drop the course, you must check out of the laboratory, or you will be charged a substantial monetary fee.

End of chapter problems

It is recommended that you attempt as many review questions and problems as possible. First attempt the problems whose numbers are printed in bold (answers given in the Appendix.). If you fail to answer any of these questions or problems correctly, try the one that immediately follows.

On-Line assignments

An e-book version of the text comes with a log-in code for 2 homework web sites. A hard copy of the text can be purchased for an additional $40.00 Mandatory homework assignments will be posted at the site along with the due date. These assignments will be graded and will constitute 25% of your overall grade. Details will be discussed in lecture.
Grading Breakdown

Semester Exams: 35%
Recitation 10%
Homework 25%
Final exam 30%

You are not allowed to distribute, sell, or purchase any electronically reproduced portions of this course. You cannot sell any written material (now or in the future) obtained from this course including returned/graded exams.

Any violation of the Queens College academic integrity policies will be reported to the department chair and to the committee on course and standing. This includes plagiarism and cheating on exams by web searches, use of unauthorized materials during exams, and chat room use during exams.

Recording a session

All sessions will be recorded, and shared on google classroom for your review. Please read and acknowledge the following disclaimer. You will be required to consent to this disclaimer during our first session, by typing “agree” in zoom chat.

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Candidates with disabilities needing academic accommodation should: 1) register with and provide documentation to the Special Services Office, Frese Hall, Room 111; 2) bring a letter indicating the need for accommodation and what type. This should be done during the first week of class. For more information about services available to Queens College candidates, visit the website, or contact: Special Service Office; Director, Miriam Detres-Hickey, Frese Hall, Room 111; 718-997-5870 (Monday – Thursday 8:00 a.m. to 5:00 p.m. & Friday 8:00 a.m. to 4 pm.).
Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/. Please read this document, paying careful attention to the sections on plagiarism and Internet plagiarism. If you are not sure how to cite work you have found on the internet, please review the APA Guidelines provided by the Purdue OWL.
Department of Chemistry and Biochemistry

Recitation Syllabus
Chemistry 113.4 Section 1 (47030)
Introduction to Chemical Techniques

Instructor: Tianyu Bo
Office: Blackboard Collaborate or Zoom
Office hours: Tu 4:30 – 5:30 pm or by appointment (arrange via e-mail)
E-mail: tianyu.bo@qc.cuny.edu

Recitation Section: SEC 1: Tuesday: 11:10 am - 12:00 pm, Online via Blackboard Collaborate

COURSE

General Chemistry 1 Recitation (CHEM 1134/1) Fall 2020

Synchronous Online Course
This course will be offered synchronously. All students are required to be online via Blackboard Collaborate Ultra.

ATTENDANCE
You are required to attend all examinations, lecture and all recitation sessions online. You must obtain a doctor’s note or provide other written documentation if you miss an examination, or recitation because of sickness or any other circumstance. This note must be given to your recitation instructor. Grades of unofficial withdraw (WU) will be giving if your total absences in lecture/recitation exceeds 4 times.

ASSIGNMENT
Homework problems and general solving techniques are gone over during recitation. Homework should be done before coming to recitation. This is your opportunity to ask questions regarding problem solving.

Worksheets submission page will be created on Blackboard, under the Assignments page. Worksheets should be submitted through Blackboard only. Quizzes will be given during recitation as open discussions instead of tests. The format of quizzes can be multiple choices, true or false and calculations.

GRADING BREAKDOWN
Worksheets: 5%
Participation: 5%
Total (Of Gen Chem I): 10%

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Queens College - CUNY
Department of Chemistry and Biochemistry

Laboratory Syllabus
Chemistry 113.1 Section 4 (47048)
Introduction to Chemical Techniques

Instructor: Tianyu Bo
Office: Blackboard Collaborate or Zoom
Office hours: Tu 4:30 – 5:30 pm or by appointment (arrange via e-mail)
E-mail: tianyu.bo@qc.cuny.edu

Lab Section: SEC 4: Tuesday: 1:40 pm - 4:30 pm, Remsen 156

Laboratory Coordinator: Dr. Sheila Sanders
Office: Blackboard Collaborate or ZOOM
Office hours: Arrange via e-mail
E-mail: ssanders@qc.cuny.edu

Responsibilities: Oversight of quizzes, laboratory protocols, Blackboard postings, laboratory instructors and grade assignments.

Important: A grade of C or better must be achieved in CHE 113.1 and CHE 113.4 courses to advance to CHE 114.1 and CHE 114.4 courses.

Required Items:
- Laboratory Notebook
- Scientific Calculator
- Experiment Documents (downloaded from Blackboard, no electronic devices are allowed in the lab)
- Blue or Black Pen
- Safety Goggles
- Lab Coat
- Mask
- Gloves

Withdrawal:
Withdrawal from the CHE 113.1 LAB does not require withdrawal from CHE 113.4 Lecture if you are passing the lecture course.
If you withdraw from lab make sure to check out with the stock room and take your White Card as a proof.
Withdrawal from the CHE 113.4 Lecture does not require withdrawal from CHE 113.1 Lab if you are passing the Lab course.

Academic Dishonesty:
Instances of academic dishonesty will not be tolerated and will be treated in accordance with university policy. Examples of academic dishonesty include copied lab reports, use of data obtained by other students, faking data, copying from another student during a quiz, etc.

Course Objectives:
To provide students with the opportunity to develop core competencies in chemistry laboratory skills, as enumerated by the American Chemical Society, including:

- Safe handling of chemicals and proper disposal of waste arising from hazardous chemicals
- Maintaining a laboratory notebook and writing proper laboratory reports
- Acquiring and analyzing data, both qualitative and quantitative, and correctly interpreting results, including correct precision, accuracy and units.

**Attendance:**

- **Attendance** for every laboratory section is mandatory. Lateness by more than 15 min. is counted as an absence.
- There is NO MAKE-UPS in Lab for any reason.
- For Holidays only official CUNY free days are respected.
- If you are absent for any reason, then you cannot submit a Lab Report for that day.
- Missed labs: Acceptable emergency or religious observances must be approved by the instructor. The instructor reserves the right to approve or reject your request. If not approved, it will result in loss of points for the lab. Make-up labs are not possible because of social distancing issues. Your instructor will assign alternate work to complete assigned labs if excused.

**Laboratory Safety:**

All safety rules listed in the laboratory safety contract, which you sign, must be followed at all times.

A 5 pt grade deduction for the most serious violations are listed below:

- Failure to wear safety glasses AT ANY TIME during the laboratory period
- Improper disposal of any chemicals (for example pouring chemicals into the sink)
- Food or drink brought into the lab
- Winter coats, book bags, etc brought into the lab. USE THE LOCKERS!
- General Housekeeping Deduction: Clean after yourself when you finish experiment.

**There is no lab manual for this course.**

Instead, you must print all 12 Queens College Experiment Procedures from Blackboard and bring the hard copy to the lab. You will not be allowed to access the lab experiments electronically during the lab. If the Procedure was revised by the Instructor, then you must print the revised form and transfer the information to your personal notebook.

**THE LABORATORY NOTE BOOK** is the only place where observations or data will be written for the experiments during the lab period using a pen. The lab notebook must be brought to each lab session and should contain the following:

- Chemicals being used
- Apparatus being used
- Steps of the procedure
- Tabulated data and observations
- Before leaving the laboratory for the day, you must obtain the instructor’s initials in the notebook and hand in the data sheet(s).

**LABORATORY REPORTS (70%)**

During the 14 week schedule, 12 experiments will be performed and each will require a LABORATORY REPORT.

LAB REPORTS must be **typed**.
EVALUATION OF LAB REPORTS
Maximum points for each LAB REPORT is **25 points**, which will convert to a % in the grade column.

A sample rubric is provided below:
**Title Page & Abstract** – 3 pts
**Introduction** – 5 pts
**Experimental** – 5 pts
**Results & Discussion** – 10 pts
**Conclusions** – 2 pts

The following penalty are given for
- wrong table: 1 pt
- wrong sig. figs.: 1 pt
- wrong graph: 1 pt
- wrong formulas: 2 pts
- wrong calculations: 3 pts
- no Data Sheets: 3 pts
- no conclusions: 2 pts

**Laboratory Reports are due 7 days after the experiment was completed** (they are due at the next class meeting).

**Reports up to 7 days late are subject to 5 points deduction automatically from the lab report grade.**
If the lab report is more than 2 weeks late, a grade of zero is assigned and no report is accepted.
**THE INSTRUCTOR CANNOT ACCEPT REPORTS 7 DAYS AFTER THE LAST EXPERIMENT.**

**Laboratory Safety Quiz**
Students must obtain a score of 70% or greater on the Laboratory Safety Quiz before working in the lab.

**Quizzes (10%)**
- Quizzes will be given during the first 10 - 15 mins of the class.
  You will not be granted extra time if you arrive late.
- Laboratory quizzes may cover the experiment from the previous week and/or ‘pre-lab’ questions regarding the experiment to be performed that day.

**LAB COURSE GRADES WILL BE POSTED IN BLACKBOARD FOR YOU TO TRACK YOUR PROGRESS**
There are three components to the laboratory course grade:
- Lab Quizzes: 10%
- Final Lab Quiz: 20%
- Laboratory Reports: 70%

**Structure and Schedule:**
There are 14 lab periods. Lab periods 1, 2, 13, and 14 are completely online. Entire class meets together online with instructor. These are synchronous online labs conducted via ZOOM or Blackboard Collaborate. In the table below, these labs are highlighted in **yellow** color.

Lab periods 3 to 12 will be a mixture of hands-on and asynchronous online labs. The class is divided into 2 groups, Group A and Group B. When Group A is doing hands-on, Group B will be doing asynchronous online lab. The groups switch their labs in the following week. The asynchronous online labs are highlighted in **red** and hands-on labs are shown in **green**. Lab Instructor will be present for in-person lab. Lab reports are due for
all labs irrespective of how it is done. There are 2 online lab quizzes taken using blackboard. Week 1 is safety quiz and week 14 is final lab quiz. There are 5 lab quizzes that will take place during in-person lab.

**Hybrid Lab sequence**

<table>
<thead>
<tr>
<th>Lab period #</th>
<th>Expt</th>
<th>Type of lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instructor introduction, Syllabus and Grading Overview, Lab safety Video, General lab safety intro from instructor, lab safety quiz</td>
<td>Synchronous online</td>
</tr>
<tr>
<td>2</td>
<td>Precision and Accuracy, significant digits, Lab experiment for measuring density (calibration of volumetric pipet and density of a solution by mass/volume measurement)</td>
<td>Synchronous online</td>
</tr>
<tr>
<td>3</td>
<td>Hands-on Lab Check-in, safety review &amp; Density of Solids, liquids [Quiz on precision, accuracy, density]</td>
<td>In-Person</td>
</tr>
<tr>
<td>4</td>
<td>Separation of a Mixture</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>5</td>
<td>Empirical Formula for Magnesium Oxide</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>6</td>
<td>(a) Precipitation Reactions</td>
<td>In-Person</td>
</tr>
<tr>
<td></td>
<td>(b) Preparation and standard KHP and titration with NaOH [Quiz]</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Copper Cycle</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>8</td>
<td>Gravimetric Analysis</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>9</td>
<td>Molar mass of metal AND/OR Heat of Neutralization [QUIZ]</td>
<td>In-Person</td>
</tr>
<tr>
<td>10</td>
<td>Percentage of acetyl salicylic acid in aspirin – by titration</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>11</td>
<td>Measuring specific heat capacity of a metal &amp; identifying a metal</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>12</td>
<td>Beer's Law, PHET lab simulation for concentration Vs absorbance, making plots and finding unknown concentration</td>
<td>Synchronous online</td>
</tr>
<tr>
<td>13</td>
<td>Student presentations [3 min each]</td>
<td>Synchronous online</td>
</tr>
<tr>
<td>14</td>
<td>Check-out and Final Lab Quiz</td>
<td>Synchronous online</td>
</tr>
</tbody>
</table>

Please see the detailed schedule with different groups and dates.

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class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.
The schedule is tentative; the instructor will notify students in writing of any changes.

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Department of Chemistry and Biochemistry
Chemistry 113.1 Section 6 (47050) Introduction to Chemical Techniques Laboratory Syllabus

Instructor: Aida Abbasiazam Office: Blackboard Collaborate or ZOOM
Office hours: via e-mail Aida.Abbasiazam@qc.cuny.edu

Lab Section: SEC 6: Wednesday: 1:40-4:30 pm, Remsen 156

Laboratory Coordinator: Dr. Sheila Sanders
Office: Blackboard Collaborate or ZOOM
Office hours: Arrange via e-mail
E-mail: ssanders@qc.cuny.edu

Responsibilities: Oversight of quizzes, laboratory protocols, Blackboard postings, laboratory instructors and grade assignments.

Important: A grade of C or better must be achieved in CHE 113.1 and CHE 113.4 courses to advance to CHE 114.1 and CHE 114.4 courses.

Required Items: Laboratory Notebook
Scientific Calculator
Experiment Documents (downloaded from Blackboard, no electronic devices are allowed in the lab).
Blue or Black Pen
Safety Goggles
Lab Coat
Mask
Gloves

Withdrawal:
Withdrawal from the CHE 113.1 LAB does not require withdrawal from CHE 113.4 Lecture if you are passing the lecture course.
If you withdraw from lab make sure to check out with the stock room and take your White Card as a proof.
Withdrawal from the CHE 113.4 Lecture does not require withdrawal from CHE 113.1 Lab if you are passing the Lab course.

Academic Dishonesty:
Instances of academic dishonesty will not be tolerated and will be treated in accordance with university policy. Examples of academic dishonesty include copied lab reports, use of data obtained by other students, faking data, copying from another student during a quiz, etc.

Course Objectives:
To provide students with the opportunity to develop core competencies in chemistry laboratory skills, as enumerated by the American Chemical Society, including:

- Safe handling of chemicals and proper disposal of waste arising from hazardous chemicals
- Maintaining a laboratory notebook and writing proper laboratory reports
- Acquiring and analyzing data, both qualitative and quantitative, and correctly interpreting results, including correct precision, accuracy and units.

**Attendance:**
- **Attendance** for every laboratory section is mandatory. Lateness by more than 15 min. is counted as an absence.
- There is NO MAKE-UPS in Lab for any reason.
- For Holidays only official CUNY free days are respected.
- If you are absent for any reason, then you cannot submit a Lab Report for that day.
- Missed labs: Acceptable emergency or religious observances must be approved by the instructor. The instructor reserves the right to approve or reject your request. If not approved, it will result in loss of points for the lab. Make-up labs are not possible because of social distancing issues. Your instructor will assign alternate work to complete assigned labs if excused.

**Laboratory Safety:**
All safety rules listed in the laboratory safety contract, which you sign, must be followed at all times.

A 5 pt grade deduction for the most serious violations are listed below:

- Failure to wear safety glasses AT ANY TIME during the laboratory period
- Improper disposal of any chemicals (for example pouring chemicals into the sink)
- Food or drink brought into the lab
- General Housekeeping Deduction: Clean after yourself when you finish experiment.

**There is no lab manual for this course.**
Instead, you must print all **Experiment Procedures from Blackboard and bring the hard copy to the lab.**

You will not be allowed to access the lab experiments electronically during the lab.
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The lab notebook must be brought to each lab session and should contain the following:

- Chemicals being used
- Apparatus being used
- Steps of the procedure
- Tabulated data and observations

**LABORATORY REPORTS (70%)**
During the 14 week schedule, 12 experiments will be performed and each will require a LABORATORY REPORT.
Lab REPORTS must be typed.
EVALUATION OF LAB REPORTS
Maximum points for each LAB REPORT is 25 points, which will convert to a % in the grade column.

A sample rubric is provided below:
Title Page & Abstract – 3 pts
Introduction – 5 pts
Procedure – 5 pts
Results & Discussion – 10 pts
Conclusions – 2 pts

The following penalty are given for
wrong table 1 pt
wrong sig. figs. 1 pt
wrong graph 1 pt
wrong formulas 2 pts
wrong calculations 3 pts

**Laboratory Reports are due 7 days after the experiment was completed** (they are due at the next class meeting).

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**Quizzes (10%)**
- Quizzes will be given during the first 10 - 15 mins of the class.
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There are three components to the laboratory course grade:
Lab Quizzes 10%
Final Lab Quiz 20%
Laboratory Reports 70%

**Structure and Schedule:**
There are 14 lab periods. Lab periods 1,2, 13, and 14 are completely online. Entire class meets together online with instructor. These are synchronous online labs conducted via ZOOM or Blackboard Collaborate. In the table below, these labs are highlighted in yellow color.

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### Group A

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<thead>
<tr>
<th>Lab period #</th>
<th>Expt</th>
<th>Type of lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instructor introduction, Syllabus and Grading Overview, Lab safety Video, General lab safety intro from instructor, lab safety quiz</td>
<td>Synchronous online</td>
</tr>
<tr>
<td>2</td>
<td>Precision and Accuracy, significant digits, Lab experiment for measuring density (calibration of volumetric pipet and density of a solution by mass/volume measurement)</td>
<td>Synchronous online</td>
</tr>
<tr>
<td>3</td>
<td>Hands-on Lab Check-in, safety review &amp; Density of Solids, liquids [Quiz on precision, accuracy, density]</td>
<td>In-Person</td>
</tr>
<tr>
<td>4</td>
<td>Separation of a Mixture</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>5</td>
<td>Precipitation Reactions [Quiz on mixture separation]</td>
<td>In-Person</td>
</tr>
<tr>
<td>6</td>
<td>Copper Cycle</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>7</td>
<td>Molar mass of a metal (Gas Laws) [Quiz on precipitation and redox reaction]</td>
<td>In-Person</td>
</tr>
<tr>
<td>8</td>
<td>Gravimetric Analysis</td>
<td>Asynchronous Online</td>
</tr>
<tr>
<td>9</td>
<td>Preparation and standard KHP and titration with NaOH [Quiz on Gravimetric Analysis, titration]</td>
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<tr>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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Instructor:        Anna Dickson                                Office: Blackboard Collaborate Ultra
Office hours:    Wed 10:00am – 11:00 am or by appointment (arrange via e-mail)
E-mail :                       adickson@qc.cuny.edu
Lab Section:      SEC 3: Tues 9:10 AM- 12:00 PM Remsen 156 (in-person lab)
                      SEC 13 We 1:40 pm - 4:30 PM Remsen 156 (in-person lab)

Responsibilities:  Oversight of quizzes, laboratory protocols, Blackboard postings, laboratory instructors
and grade assignments.

Important:  A grade of C or better must be achieved in CHE 113.1 and CHE 113.4 courses to
advance to CHE 114.1 and CHE 114.4 courses.

Required Items:  Laboratory Notebook
                     Scientific Calculator
                     Experiment Documents (downloaded from Blackboard, no electronic devices are allowed in the lab).
                     Blue or Black Pen
                     Safety Goggles
                     Lab Coat
                     Mask
                     Gloves

Withdrawal: Withdrawal from the CHE 113.1 LAB does not require withdrawal from CHE 113.4 Lecture if you are passing the lecture course.
If you withdraw from lab make sure to check out with the stock room and take your White Card as a proof.
Withdrawal from the CHE 113.4 Lecture does not require withdrawal from CHE 113.1 Lab if you are passing the Lab course.

Academic Dishonesty: Instances of academic dishonesty will not be tolerated and will be treated in accordance with university policy. Examples of academic dishonesty include copied lab reports, use of data obtained by other students, faking data, copying from another student during a quiz, etc.
Course Objectives:
To provide students with the opportunity to develop core competencies in chemistry laboratory skills, as enumerated by the American Chemical Society, including:
• Safe handling of chemicals and proper disposal of waste arising from hazardous chemicals
• Maintaining a laboratory notebook and writing proper laboratory reports
• Acquiring and analyzing data, both qualitative and quantitative, and correctly interpreting results, including correct precision, accuracy and units.

Attendance:
• Attendance for every laboratory section is mandatory. Lateness by more than 15 min. is counted as an absence.
• There is NO MAKE-UPS in Lab for any reason.

• For Holidays only official CUNY free days are respected.
• If you are absent for any reason, then you cannot submit a Lab Report for that day.
• Missed labs: Acceptable emergency or religious observances must be approved by the instructor. The instructor reserves the right to approve or reject your request. If not approved, it will result in loss of points for the lab. Make-up labs are not possible because of social distancing issues. Your instructor will assign alternate work to complete assigned labs if excused.

Laboratory Safety:
All safety rules listed in the laboratory safety contract, which you sign, must be followed at all times.

A 5 pt grade deduction for the most serious violations are listed below:

• Failure to wear safety glasses AT ANY TIME during the laboratory period
• Improper disposal of any chemicals (for example pouring chemicals into the sink)
• Food or drink brought into the lab
• Winter coats, book bags, etc brought into the lab. USE THE LOCKERS!
• General Housekeeping Deduction: Clean after yourself when you finish experiment.

There is no lab manual for this course.
Instead, you must print all 12 Queens College Experiment Procedures from Blackboard and bring the hard copy to the lab. You will not be allowed to access the lab experiments electronically during the lab.
If the Procedure was revised by the Instructor, then you must print the revised form and transfer the information to your personal notebook.

THE LABORATORY NOTE BOOK is the only place where observations or data will be written for the experiments during the lab period using a pen.
The lab notebook must be brought to each lab session and should contain the following:
• Chemicals being used
• Apparatus being used
• Steps of the procedure
• Tabulated data and observations
• Before leaving the laboratory for the day, you must obtain the instructor’s initials in the notebook and hand in the data sheet(s).
LABORATORY REPORTS (70%)
During the 14 week schedule, 12 experiments will be performed and each will require a LABORATORY REPORT.
LAB REPORTS must be typed.

EVALUATION OF LAB REPORTS
Maximum points for each LAB REPORT is 25 points, which will convert to a % in the grade column.

A sample rubric is provided below:
Title Page & Abstract – 3 pts
Introduction – 5 pts
Experimental – 5 pts
Results & Discussion – 10 pts
Conclusions – 2 pts

The following penalty are given for
wrong table 1 pt
wrong sig. figs. 1 pt
wrong graph 1 pt
wrong formulas 2 pts
wrong calculations 3 pts
no Data Sheets 3 pts
no conclusions 2 pts

Laboratory Reports are due 7 days after the experiment was completed (they are due at the next class meeting).

Reports up to 7 days late are subject to 5 points deduction automatically from the lab report grade.
If the lab report is more than 2 weeks late, a grade of zero is assigned and no report is accepted.
THE INSTRUCTOR CANNOT ACCEPT REPORTS 7 DAYS AFTER THE LAST EXPERIMENT.

Laboratory Safety Quiz
Students must obtain a score of 70% or greater on the Laboratory Safety Quiz before working in the lab.

Quizzes (10%)
• Quizzes will be given during the first 10 - 15 mins of the class.
  You will not be granted extra time if you arrive late.
• Laboratory quizzes may cover the experiment from the previous week and/or ‘pre-lab’ questions regarding the experiment to be performed that day.

LAB COURSE GRADES WILL BE POSTED IN BLACKBOARD FOR YOU TO TRACK YOUR PROGRESS
There are three components to the laboratory course grade:
Lab Quizzes 10%
Final Lab Quiz 20%
Laboratory Reports 70%

Structure and Schedule:
There are 14 lab periods. Lab periods 1, 2, 13, and 14 are completely online. Entire class meets together online with instructor. These are synchronous online labs conducted via ZOOM or Blackboard Collaborate. In the table below, these labs are highlighted in yellow color.

Lab periods 3 to 12 will be a mixture of hands-on and asynchronous online labs. The class is divided into 2 groups, Group A and Group B. When Group A is doing hands-on, Group B will be doing asynchronous online lab. The groups switch their labs in the following week. The asynchronous online labs are highlighted in red and hands-on labs are shown in green. Lab Instructor will be present for in-person lab. Lab reports are due for all labs irrespective of how it is done. There are 2 online lab quizzes taken using blackboard. Week 1 is safety quiz and week 14 is final lab quiz. There are 5 lab quizzes that will take place during in-person lab.

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**REASONABLE ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**
Students with disabilities needing academic accommodation should register with the Special Services Office by emailing QC.SPSV@qc.cuny.edu. For more information about services available to Queens College students, visit the Office of Special Services website: https://www.qc.cuny.edu/studentlife/services/specialserv/Pages/default.aspx
Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/.
Department of Chemistry and Biochemistry  
Chemistry 113.1 Section 01 (47045) Introduction to Chemical Techniques Laboratory Syllabus

Instructor: Mr. T. Sangiorgi  
Office: ZOOM

Office hours: Mondays, 12:00 – 1:00 pm or by appointment (arrange via e-mail)

E-mail: Thomas.Sangiorgi@qc.cuny.edu

Lab Section: SEC 01: Mondays: 9:10 am - 12:00 pm, Remsen 156

Laboratory Coordinator: Dr. Sheila Sanders  
Office: Blackboard Collaborate or ZOOM

Office hours: Arrange via e-mail

E-mail: ssanders@qc.cuny.edu

Responsibilities: Oversight of quizzes, laboratory protocols, Blackboard postings, laboratory instructors and grade assignments.

Important: A grade of C or better must be achieved in CHE 113.1 and CHE 113.4 courses to advance to CHE 114.1 and CHE 114.4 courses.

Required Items:  
- Laboratory Notebook  
- Scientific Calculator  
- Experiment Documents (downloaded from Blackboard, no electronic devices are allowed in the lab).  
- Blue or Black Pen  
- Safety Goggles  
- Lab Coat  
- Mask  
- Gloves

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**Course Objectives:**
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- Acquiring and analyzing data, both qualitative and quantitative, and correctly interpreting results, including correct precision, accuracy and units.

**Attendance:**
- **Attendance** for every laboratory section is mandatory. Lateness by more than 15 min. is counted as an absence.
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A 5 pt grade deduction for the most serious violations are listed below:

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**There is no lab manual for this course.**
Instead, you must print all **Experiment Procedures from Blackboard and bring the hard copy to the lab.**
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The lab notebook must be brought to each lab session and should contain the following:

- Chemicals being used
- Apparatus being used
- Steps of the procedure
- Tabulated data and observations

**LABORATORY REPORTS (70%)**
During the 14 week schedule, 12 experiments will be performed and each will require a LABORATORY REPORT.
LAB REPORTS must be **typed.**
EVALUATION OF LAB REPORTS
Maximum points for each LAB REPORT is 25 points, which will convert to a % in the grade column.

A sample rubric is provided below:
**Title Page & Abstract** – 3 pts
**Introduction** – 5 pts
**Procedure** – 5 pts
**Results & Discussion** – 10 pts
**Conclusions** – 2 pts

The following penalties are given for:
- wrong table: 1 pt
- wrong sig. figs.: 1 pt
- wrong graph: 1 pt
- wrong formulas: 2 pts
- wrong calculations: 3 pts

**Laboratory Reports are due 7 days after the experiment was completed** (they are due at the next class meeting).

**Reports up to 7 days late are subject to 5 points deduction automatically from the lab report grade.**
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**THE INSTRUCTOR CANNOT ACCEPT REPORTS 7 DAYS AFTER THE LAST EXPERIMENT.**

**Laboratory Safety Quiz**
Students must obtain a score of 70% or greater on the Laboratory Safety Quiz before working in the lab.

**Quizzes (10%)**
- Quizzes will be given during the first 10-15 mins of the class.
  - You will not be granted extra time if you arrive late.
- Laboratory quizzes may cover the experiment from the previous week and/or ‘pre-lab’ questions regarding the experiment to be performed that day.

**LAB COURSE GRADES WILL BE POSTED IN BLACKBOARD FOR YOU TO TRACK YOUR PROGRESS**
There are three components to the laboratory course grade:
- Lab Quizzes: 10%
- Final Lab Quiz: 20%
- Laboratory Reports: 70%

**Structure and Schedule:**
**General structure:** There are 14 lab periods. Lab periods 1, 2, 12-14 are completely online. Entire class meets together online with instructor. These are synchronous online labs conducted via zoom or blackboard. In the table below, these labs are highlighted in yellow color.

Lab periods 3 to 11 will be a mixture of hands-on and asynchronous online labs. The class is divided into 3 groups. When one group is doing hands-on, others will be doing asynchronous online lab in the sequence. The asynchronous online labs are highlighted in red and hands-on labs are shown in green. Lab Instructor will be present for in-person lab. Lab reports are due for all labs irrespective of how it is done. There will be online lab quizzes as well as during in-person labs.

**Week 1 is safety quiz and week 14 is final lab quiz.**
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You may also send an email to KeepLearning@qc.cuny.edu if you encounter difficulties or have issues you can’t resolve on your own.

**REASONABLE ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**
Students with disabilities needing academic accommodation should register with the Special Services Office by emailing QC.SPSV@qc.cuny.edu. For more information about services available to Queens College students, visit the Office of Special Services website: https://www.qc.cuny.edu/studentlife/services/specialserv/Pages/default.aspx

**CUNY POLICY ON ACADEMIC INTEGRITY**
Academic Dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/.
MEDIA AGREEMENT DURING ZOOM OR OTHER ONLINE PLATFORM MEETINGS

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.
1. Lecture Instructor Information

**Lecturer:** Jay Ho  
**Office:** Remsen 206 (Chemistry Department)  
**Office Hours:** Tuesdays 6:35 – 7:35 pm, right after lecture. Or by appointment.  
**Contact:** jay.ho@qc.cuny.edu

2. Course Information

**Lecture Detail:** Tuesdays, 4:40 – 6:30 pm  
**Recitation Time**  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Recitation Time</th>
<th>Room</th>
<th>Instructor</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CRN: 47062)</td>
<td>T, 12:05 – 1:55 pm.</td>
<td>Online</td>
<td>Singh</td>
<td><a href="mailto:Karamvir.Singh@qc.cuny.edu">Karamvir.Singh@qc.cuny.edu</a></td>
</tr>
<tr>
<td>(CRN: 47063)</td>
<td>F, 1:00 – 2:50 pm.</td>
<td>Online</td>
<td>Look</td>
<td><a href="mailto:Edward.Look@qc.cuny.edu">Edward.Look@qc.cuny.edu</a></td>
</tr>
</tbody>
</table>

**Items Required:** A scientific **non-graphing** calculator.  

3. Grading Policy & Types of Assignments

Official Queens College Grade Scale:  

**20% Reading Assignments:** The Reading Assignments are due 40 minutes before class begins. This entails reading the chapter and answering all relevant topic questions. Access to the Reading Assignments will be through Connect. There will be a total of 9 chapters due.

**20 % Aleks Homework:** Aleks Homework is usually due one week after we cover the full chapter in lecture. There will be 8 objectives that you must complete. After every few objectives, there will be a “Post Objective Progress Assessment” – **Do not click “I don’t know” unless you do not know. This will set you back.** There will also be “Review Period (Open Pie)” moments, during this time you can access all chapters for practice. There may be an assigned extra credit Aleks HW at the end of the semester.

**35% Quizzes:** There will be a quiz assigned in recitation after each chapter is covered in lecture. They will be based on topics covered in recitation and lecture. These quizzes are designed by both the recitation instructor and lecture instructor. The format will be a combination of the following: **Multiple Choice, Fill in the blank, Definitions, Short Response and Long Answer Calculations.** The lowest quiz grade will be dropped at the end of the semester – this is your “I couldn’t take the exam because...” quiz, we all have off days.

**20% Final:** This will be given at the end of the semester. It is a cumulative exam; the chemistry department will decide on the format.

**5% Participation:** Participation is required and noted in both lecture and recitation. Remember, you paid for the course, it would be a waste not to attend. Polling questions will appear periodically during lecture and recitation.
4. **Schedule & How to access Lecture & Recitation**

**Lecture Schedule & Zoom Access:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Chapter #</th>
<th>Topic</th>
<th>Reading Assignment</th>
<th>Aleks Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/01</td>
<td>Intro/12</td>
<td>Introduction/Intermolecular Forces</td>
<td>Chapter Due by 4:00 PM</td>
<td></td>
</tr>
<tr>
<td>09/08</td>
<td>12/13</td>
<td>Intermolecular Forces/Properties of Mixtures</td>
<td>Chapter 12</td>
<td></td>
</tr>
<tr>
<td>09/15</td>
<td>13</td>
<td>Properties of Mixtures</td>
<td>Chapter 13</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>09/22</td>
<td>16 &amp; 24</td>
<td>Kinetics &amp; Nuclear Reactions</td>
<td>Chapter 13</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>10/06</td>
<td>16 &amp; 24/17</td>
<td>Kinetics &amp; Nuclear Reactions/Equilibrium</td>
<td>Chapter 16 &amp; 24</td>
<td></td>
</tr>
<tr>
<td>10/13</td>
<td>17/18</td>
<td>Equilibrium/ Acid-Base Equilibria</td>
<td>Chapter 17</td>
<td>Chapter 16 &amp; 24</td>
</tr>
<tr>
<td>10/20</td>
<td>18</td>
<td>Acid-Base Equilibria</td>
<td>Chapter 17</td>
<td></td>
</tr>
<tr>
<td>10/27</td>
<td>18/19</td>
<td>Acid-Base Equilibria/ Ionic Equilibria in Aqueous Systems</td>
<td>Chapter 18</td>
<td></td>
</tr>
<tr>
<td>11/03</td>
<td>19</td>
<td>Ionic Equilibria in Aqueous Systems</td>
<td>Chapter 19</td>
<td>Chapter 18</td>
</tr>
<tr>
<td>11/10</td>
<td>20</td>
<td>Thermodynamics</td>
<td>Chapter 19</td>
<td></td>
</tr>
<tr>
<td>11/17</td>
<td>20/21</td>
<td>Thermodynamics/ Electrochemistry</td>
<td>Chapter 20</td>
<td></td>
</tr>
<tr>
<td>11/24</td>
<td>21</td>
<td>Electrochemistry</td>
<td>Chapter 21</td>
<td>Chapter 20</td>
</tr>
<tr>
<td>12/01</td>
<td>All</td>
<td>Review Session 1</td>
<td>Chapter 21</td>
<td></td>
</tr>
<tr>
<td>12/08</td>
<td>All</td>
<td>Review Session 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12/15</td>
<td>Final</td>
<td>Final Exam</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lectures will be presented through Zoom. Register in advance for this meeting:**

[https://zoom.us/meeting/register/tJItc-CurTltH9Ks-gtxw86vs3ZyQNdzUg](https://zoom.us/meeting/register/tJItc-CurTltH9Ks-gtxw86vs3ZyQNdzUg)

After registering, you will receive a confirmation email containing information about joining the meeting. Everyone should login using their CUNYfirst login. A link will also be posted on blackboard.

*To manually join the meeting*

Zoom Meeting ID#: 960 4963 9756  PW:11355

Please make sure to use your full name when signing in, if a name is not recognized, they will not be admitted into the room.
Recitation/Quiz Schedule:
Your recitation instructors will contact you with information regarding the programs that they wish to use for recitation. All quizzes are given on blackboard, there will be a password that you will obtain from your recitation instructor. All quizzes are a set 45 minutes. The days in bold are the scheduled quiz days, if you cannot take a scheduled quiz, notify both your recitation and lecture instructor in advance and we will try to schedule you on another day in the same week.

<table>
<thead>
<tr>
<th>Quiz</th>
<th>Tuesday Section (CRN 47062) On Zoom with Instructor Singh</th>
<th>Friday Section (CRN 47063) On Blackboard Collaborate Ultra with Instructor Look</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>08/28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>09/01</td>
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<tr>
<td></td>
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<td>09/04</td>
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<tr>
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<td>09/08</td>
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<tr>
<td></td>
<td></td>
<td>09/11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>09/15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>--No Class--</td>
</tr>
<tr>
<td>Chapter 12</td>
<td>09/22</td>
<td>09/25</td>
</tr>
<tr>
<td></td>
<td>--No Class--</td>
<td>10/02</td>
</tr>
<tr>
<td>Chapter 13</td>
<td>10/06</td>
<td>10/09</td>
</tr>
<tr>
<td>Chapter 16 &amp; 24</td>
<td>10/13</td>
<td>10/16</td>
</tr>
<tr>
<td></td>
<td>10/20</td>
<td>10/23</td>
</tr>
<tr>
<td>Chapter 17</td>
<td>10/27</td>
<td>10/30</td>
</tr>
<tr>
<td>Chapter 18</td>
<td>11/03</td>
<td>11/06</td>
</tr>
<tr>
<td></td>
<td>11/10</td>
<td>11/13</td>
</tr>
<tr>
<td>Chapter 19</td>
<td>11/17</td>
<td>11/20</td>
</tr>
<tr>
<td>Chapter 20</td>
<td>11/24</td>
<td>11/25*** Wednesday***</td>
</tr>
<tr>
<td>Chapter 21</td>
<td>12/01</td>
<td>12/04</td>
</tr>
<tr>
<td></td>
<td>12/08</td>
<td>12/11</td>
</tr>
</tbody>
</table>

Course Section Breakdown (*Very Brief):
- Chapter 12: 12.1, 12.2, 12.3, 12.4, 12.5, 12.6*
- Chapter 13: 13.1, 13.3*, 13.4*, 13.5, 13.6
- Chapter 16/24: 16.1, 16.2, 16.3, 16.4, 16.5*, 16.6, 16.7*, 24.1, 24.2
- Chapter 17: 17.1, 17.2, 17.3, 17.4, 17.5, 17.6
- Chapter 18: 18.1, 18.2, 18.3, 18.4, 18.5, 18.6, 18.7, 18.8, 18.9
- Chapter 19: 19.1, 19.2, 19.3, 19.4*
- Chapter 20: 20.1, 20.2, 20.3, 20.4
5. How to access Connect & Aleks

For this course you will be required to purchase McGraw-Hill Education Connect® access and ALEKS Access for "Chemistry: The Molecular Nature of Matter and Change" 8th edition by Martin Silberberg and Patricia Amateis. You are not required to have a print text and please be aware if you purchase a used textbook you will still need to purchase Connect access (which includes access to the eBook).

Connect and ALEKS Access Cards can be purchased together at a discounted rate in the QC Online Bookstore. https://qc.textbookx.com/institutional/index.php

One-Semester Access to ALEKS and Connect ($70.00 - 75.00)

How to access Connect for Reading Assignments:
To get started, go to the Connect Section URL: https://connect.mheducation.com/class/j-ho-fall-2020-online-course and click Register Now. Next you will need to enter your email address and click Submit. Enter your Connect Registration Code (provided on access card shipped to you, after purchasing from one of above sites), enter the code and click Submit. If you haven’t received your Registration Cards yet, you can use the complimentary access for two weeks, but be sure to purchase access at above immediately, as it will take 7-10 business days to ship. Complete the remaining steps to finish registering for Connect. Do NOT Purchase Access from Connect by clicking the ‘Buy Now’ option, you will not have access to ALEKS and will pay double.

What to do if you cannot login to Connect:
If you have previously used Connect and every time you login it takes you to that previous course. Clear your browser cache/history or use a different browser. If you are still having trouble, send me an email immediately.

How to access Aleks HW:
Next, visit www.ALEKS.com and log in (if you’ve used ALEKS before) or click the ‘New Student? Sign Up Now’ Button in yellow. Then enter course code: TWJM-W-V4Q4Q and click ‘Continue’. Check that the section is correct, if so, click ‘Continue’ again. Choose ‘I have never used ALEKS before or I do not have an ALEKS login name’ and ‘Continue’. Enter your ALEKS Registration Code (provided on access card shipped to you, after purchasing from one of above sites), enter the code and click ‘Continue’. If you have not received your Registration Cards yet, you can use the Financial Aid Access Code, 86465-371AB-5CFB9-EC1A0 but be sure to purchase access codes from the bookstore immediately. Complete the remaining steps to finish registering for ALEKS.

What to do if you cannot login to ALEKS:
If you cannot join the class, you can always make a new account using a different email. If you still have access from a previous course, please remember to check when your access expires. I have had students who misplaced their access codes and their previous Aleks access expired 1 month into the course. If you are still having trouble, send me an email immediately.
6. Side Notes & Disclaimer

- All lectures will be conducted via Zoom. The link will be provided on blackboard. When joining the room, please use your full name (no abbreviations), otherwise, if I do not recognize your name, you will not be admitted into the room.
- Recitations will be conducted on the program of your recitation instructor’s choosing. If there is a scheduled quiz for that recitation, there will be time set aside near the end of the recitation for you to begin your quiz. Your recitation instructor will have the password ready for you to access the quiz. Please remain on the video conferencing program with your instructor in case there are any technical difficulties.
- During lecture if you have any questions that are not related to the current topic, please wait until after the lecture, I will try my best to answer all your questions. I also have scheduled office hours and can be available via appointment. We have two hours each lecture to cover three hours’ worth of material, we will be moving at a very rapid pace. This will remain true all throughout the semester.
- Remember to do both Aleks and Connect Homework, it counts for a large percentage of your grade. I highly encourage you to do them early on, it will require a lot of time and you do not want to wait until the last minute.
- Please purchase the Aleks and Connect homework through the bookstore as soon as possible (within the first week). Your courtesy access is only available for two weeks. If you are having difficulties purchasing the codes, please send me an email immediately, do not wait until your courtesy access expires.
- Your quizzes will be created on rotation by all the recitation instructors and myself to keep things fair, all questions will be based on material from the textbook, lectures, and recitation.
- I do not give out the lecture slides. All lecture sessions are done synchronously/live. This will not change.
- This class is not like other Chem114 courses, here we do chapter quizzes instead of tests. This course also has a very strong emphasis on homework programs. You will still receive a challenging and time-consuming course that will require your full focus. If you would rather take a regular general chemistry class with 3 exams and a final, I recommend switching classes; otherwise, you have been warned.

7. The Four Side NO’s

There will be NO extensions on Reading Assignments & Aleks (HW). The dates are posted and set. Technical difficulties the night before it is due is not an excuse. To avoid such a dilemma, please do them in advance, you never know when your internet stops working or if the power is out.

There will be NO make-up quizzes if you miss it, but the lowest quiz will be dropped. If you cannot make it for a quiz, please contact us in advance to arrange a possible make-up day. If a make-up quiz is provided, it must be taken in the same week as the originally scheduled quiz, no exceptions.

There will be NO additional extra credit provided. There “may” be one extra credit assignment given at the end of the semester through Aleks. If no extra credit is announced, none is provided.

There will be NO curve in this class. The grade you receive is the grade you get. If everyone earns enough to get A’s, then everyone gets an A. I will honor this and fight for this grade for you, no matter what anyone says. But this applies to failing grades as well, if everyone ends up with failing grades, then everyone gets failing grades. The grading scale for this class follows the exact same as the grading scale provided by Queens College. I have never had to curve since I taught this lecture and it still remains true.
8. Additional Information

This course was originally created as a hybrid course with online homework as a large component. This still holds true, even more so now that it is online. You will spend part of the recitation going over problems and topics you are struggling with from the course. The other part will be spent working on your Aleks homework/connect homework, if you are having trouble, this is the perfect opportunity to ask one another and your recitation instructor for help.

My office hours are always open right after lecture, do not hesitate to ask questions, especially if you are struggling. If you don’t understand something about this syllabus, please email me and I will clarify.

If you are struggling with something and if you feel comfortable with letting me know, I will try to help as best I can. I know things are crazy right now with the pandemic and economy and (insert random event of 2020).

Lastly, I cannot stress this enough. If you believe there was a calculation error, an issue in the slides, or something that does not make sense. Do not hesitate to contact me, I always try to check for typos and recheck my calculations before giving back grades, but I am human, mistakes happen. Remember, the one person who will fight hardest for your grade is you.

9. Recording during our lectures:

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

Stay Safe!
## Chemistry 1144 • Fall 2020 • Lecture Schedule

**Text:** "Chemistry: the molecular nature of matter and change"

*by Silberberg & Amateis, 8th ed, McGraw-Hill, 2018*

<table>
<thead>
<tr>
<th>Dates</th>
<th>Chapter No.</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 27, 31</td>
<td>12</td>
<td>Liquids and Solids; Intermolecular Forces</td>
</tr>
<tr>
<td>Sep 3, 10, 14</td>
<td>13</td>
<td>Solutions</td>
</tr>
<tr>
<td>Sep 17, 21, 24</td>
<td>16</td>
<td>Kinetics</td>
</tr>
<tr>
<td>Sep 29, Oct 1</td>
<td>17</td>
<td>Equilibrium</td>
</tr>
<tr>
<td>Oct 5</td>
<td></td>
<td><strong>EXAMINATION # 1</strong>, covering Chapters 12, 13 &amp; 16</td>
</tr>
<tr>
<td>Oct 8</td>
<td>17</td>
<td>Equilibrium</td>
</tr>
<tr>
<td>Oct 14, 15, 19</td>
<td>18</td>
<td>Acids and Bases</td>
</tr>
<tr>
<td>Oct 22, 26, 29</td>
<td>18/19</td>
<td>Acid-Base Equilibria; Solubility and Complex Ion Equilibria</td>
</tr>
<tr>
<td>Nov 2</td>
<td>20</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>Nov 5</td>
<td></td>
<td><strong>EXAMINATION # 2</strong>, covering Chapters 17-19 (no solubility)</td>
</tr>
<tr>
<td>Nov 9, 12</td>
<td>20</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>Nov 16, 19, 23</td>
<td>21</td>
<td>Electrochemistry</td>
</tr>
<tr>
<td>Nov 30</td>
<td>23</td>
<td>Transition Metals and Metal Complexes</td>
</tr>
<tr>
<td>Dec 3</td>
<td>23</td>
<td><strong>EXAMINATION # 3</strong>, covering Chapters 19-21</td>
</tr>
<tr>
<td>Dec 7</td>
<td></td>
<td>Transition Metals and Metal Complexes</td>
</tr>
</tbody>
</table>

**Point distribution:** Hour Exams: 45%; Recitation work: 25%, including 10% for the homework (Aleks) and 15% for quizzes; Final (cumulative): 30%.

**Deadlines for the homework:**
- 35% of pie chart must be complete by 11:59 pm on Oct 7
- 60% of pie chart must be complete by 11:59 pm on Nov 4
- 85% of pie chart must be complete by 11:59 pm on Dec 2
- 100% of pie chart must be complete by 11:59 pm on Dec 11

**Homework website:** [www.aleks.com](http://www.aleks.com)

**Class Key:** JQRED-RRXUJ

**Financial Aid Access Code for Aleks:** B8212-8767B-0C249-DD094

**Lecturer:** Michael V. Mirkin; Remsen Hall # 120E, phone: (718) 997-4111, mmirkin@qc.cuny.edu

**Office hours:** by appointment

*A grade of C or better is required to register for the next Chemistry course.*
Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image.

Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.
CHEM 114.1- General Chemistry II Laboratory
Sections 6

Laboratory Syllabus

I. Laboratory Course Format- Hybrid
A. The lab course this semester unless otherwise directed by the State of New York, City University of New York, and Department of Chemistry and Biochemistry will be a hybrid in-person and online course.
B. Some experiments will be in-person (LAB), others online synchronously with your officially scheduled lab time requiring you to log in on time (SYN), and still others offline with no set start time (ASY), but all lab reports are still due at specified time; see §IX.

II. General Laboratory Rules
A. Always wear safety goggles and contact lenses not allowed.
B. No short pants, skirts, nor open toe shoes are allowed, and tie back long hair.
C. NO food, beverages, gum, horseplay, nor stunt experiments allowed.
D. No computer nor tablet nor cell phone use in the laboratory during class activities.

III. Laboratory Manual: posted on BlackBoard

IV. Laboratory Reports
A. A report is required for EACH experiment.
B. Lab reports are always due next lab session, for any lab. All lab reports will be electronically submitted through Blackboard; upload links will be established in each section on Blackboard for each lab report. Late reports are strongly discouraged, and they will receive a severe reduction in points, as determined by your instructor.
C. Format:
   1. **Heading:** Always be sure your name, section number, experiment title AND date the experiment was performed is included.
   2. **Abstract:** This is one short paragraph summarizing your entire paper.
   3. **Introduction:** Explain concisely the chemistry of the experiment, including any equations and other scientific and mathematical explanations; i.e., the theory. No fluff, please.
   4. **Experimental:** A concise but complete summary of the steps, materials, and apparatus of the experiment.
   5. **Data:** Include your original data; i.e., the “carbon copy” of measurements or observations you directly recorded during the experiment stapled to back of report. However, rewritten data are to be included in the Data section of the report.
   6. **Calculations and Results:** Show all work; but if there is a repetitive calculation, you need only show the equation and its use only once; after that, just list the answer. Include here also any graphs or diagrams that may be required.
   7. **Discussion:** State whether results were good or bad, and reasons why, what may have affected them, and any problems with the experiment. Be brief but complete. There may be questions you must answer, or blanks from the manual to fill; work them into your discussion.
   8. **Conclusion:** Summarize your final conclusions in your discussion section along with your results and very basically what you did. (The discussion section is where you actually draw your important conclusions.)
V. Grading
A. Late reports are not acceptable and your instructor will deduct up to or at least 50% off the report.
B. Reports will be graded also for conformance to the above described format; the apportionment of points to be determined by your instructor.
C. Your instructor may drop one report, of the lowest grade, from your totals.
D. Apportionment of course points is also to be determined by your instructor, but there will be points for your performance while in the laboratory. The criteria are as follows:
   1. safety - if you do not work safely, you instructor will deduct points at his discretion
   2. independence- your ability to work and think independently, as determined by your instructor
   3. efficiency- your ability to correctly and quickly accomplish the experiment
   4. effectiveness- and of course, how well the results turned out

VI. Laboratory Requirements:
A. PRE-LAB: Write, in your own words, the theory and procedure for the experiment in your notebook before coming to lab. Therefore, all notes must be preceded by the pre-lab. Consult the experiment schedule in §IX below for the order of experiments.
B. If you drop the course, you must check-out ASAP! Otherwise, you do so at the normal time on the final check-out day. If you do not check-out you will be charged a fine as listed in the Stockroom.
C. Eye protection must be worn at all times in the lab; penalty for failure to do so is a 0 (zero) for the day and/or dismissal from that day’s lab with no possibility of make-up.
D. You must watch the Department’s ACS lab safety video during the first lab. If for some reason you missed it then, you must immediately arrange with the Chemistry Stockroom to watch it.
E. You must have safety goggles, a lab coat and a combination lock; we will issue these to you.
F. You must have an approved laboratory notebook with carbonless copy pages (for example, ISBN 978-1-930882-74-4 or 978-1-617319-14-3; there are other acceptable ones), and use it; do not take any notes on scrap paper or other things.
G. You will need a scientific calculator. and either a USB flash drive or a SD card.
H. You will read the day’s experiment before coming to lab, and bring a copy with you.

VII. MISSED LABS
A. Must be made up as soon as possible; consult your instructor and the stockroom to arrange a time. Be warned this will be very difficult in these partial quarantine times.
B. Must fill out make-up form, signed by your instructor first, then by the make-up instructor right after you finish the experiment. One copy goes to your instructor, one to the stockroom, and one to you (it is in triplicate).
C. Be sure to get make-up instructor to sign or initial your notes and data. The lab report goes, of course, to your instructor.
D. Any potential make-up instructor has the right to deny permission to attend his section.

VIII. Safety: APPROVED MASKS COVERING NOSE AND MOUTH, goggles, long pants or skirts, closed toe shoes, and long hair tied back are required. Eating, drinking, gum chewing, horseplay, stunt experiments, and contact lenses are not allowed, wear glasses to lab instead. Safety shower, eyewash, and fire extinguisher locations must be noted. Chemical waste handling protocols must be observed; if in doubt ask! Points will be deducted for unsafe practices or violations of waste protocols, and you may be ejected from lab and receive a zero (0) for that day’s work. You must watch the safety video before any work starts this semester, regardless of whether you have seen it before. If you miss it, tell your instructor to arrange a session for you as soon as possible.
IX. Code of Conduct

A. Plagiarism - Plagiarism or any other form of cheating is not tolerated and will be severely punished by point and other penalties and/or referral to the Chairman and the Dean; any assignment involved will receive a grade of zero (0). Failure to properly cite a source may be considered plagiarism.

B. Inappropriate behavior, e.g., horseplay or off-color language, will not be tolerated and may lead to expulsion from class and a zero if during an examination or assignment. You may not allow non-class members to log in during synchronous sessions.

X. Schedule of Experiments:

<table>
<thead>
<tr>
<th>Week</th>
<th>Group #1</th>
<th>Group #2</th>
<th>Group #3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro to Lab &amp; Exploring Boiling Points SYN</td>
<td>Intro to Lab &amp; Exploring Boiling Points SYN</td>
<td>Intro to Lab &amp; Exploring Boiling Points SYN</td>
</tr>
<tr>
<td>2</td>
<td>Beer’s Law SYN</td>
<td>Beer’s Law SYN</td>
<td>Beer’s Law SYN</td>
</tr>
<tr>
<td>3</td>
<td>Check in – Fe Titration LAB</td>
<td>Heats of Solution ASY</td>
<td>van’t Hoff and Osmosis ASY</td>
</tr>
<tr>
<td>4</td>
<td>van’t Hoff and Osmosis ASY</td>
<td>Check in – Fe Titration LAB</td>
<td>Heats of Solution ASY</td>
</tr>
<tr>
<td>5</td>
<td>Heats of Solution ASY</td>
<td>van’t Hoff and Osmosis ASY</td>
<td>Check in – Fe Titration LAB</td>
</tr>
<tr>
<td>6</td>
<td>Analyzing Complex Mixture LAB</td>
<td>Kinetics ASY</td>
<td>Equilibrium Pt. I ASY</td>
</tr>
<tr>
<td>7</td>
<td>Equilibrium Pt. I ASY</td>
<td>Analyzing Complex Mixture LAB</td>
<td>Kinetics ASY</td>
</tr>
<tr>
<td>8</td>
<td>Kinetics ASY</td>
<td>Equilibrium Pt. I ASY</td>
<td>Analyzing Complex Mixture LAB</td>
</tr>
<tr>
<td>9</td>
<td>Equilibrium Pt. II LAB – Checkout</td>
<td>Complex Ion ASY</td>
<td>Acids, Bases, Buffers &amp; Salts ASY</td>
</tr>
<tr>
<td>10</td>
<td>Acids, Bases, Buffers &amp; Salts ASY</td>
<td>Equilibrium Pt. II LAB - Checkout</td>
<td>Complex Ion ASY</td>
</tr>
<tr>
<td>11</td>
<td>Complex Ion ASY</td>
<td>Acids, Bases, Buffers &amp; Salts ASY</td>
<td>Equilibrium Pt. II LAB - Checkout</td>
</tr>
<tr>
<td>12</td>
<td>DIY Qual SYN</td>
<td>DIY Qual SYN</td>
<td>DIY Qual SYN</td>
</tr>
<tr>
<td>13</td>
<td>Acid Salt Id. SYN</td>
<td>Acid Salt Id. SYN</td>
<td>Acid Salt Id. SYN</td>
</tr>
<tr>
<td>14</td>
<td>Electrochemistry SYN</td>
<td>Electrochemistry SYN</td>
<td>Electrochemistry SYN</td>
</tr>
</tbody>
</table>

Explanation of three-letter codes:

LAB- In-person lab; presence in assigned lab room in Remsen Hall is required to perform lab

SYN- Synchronous lab; this is done online but you must log into class at your official lab time

ASY- Asynchronous lab; this is done offline, no strictly set time except for report due date
XI. COVID-19 Concerns:
If you cannot attend the in-person (LAB) sessions due to COVID-19 concerns, i.e., you have a medical condition or if you live with someone who has pre-existing medical conditions which put you or them at high medical risk from COVID-19 exposure, inform your instructor and Dr. Edward G. Look, 114.1 coordinator (edward.look@qc.cuny.edu), and you may be exempted from the in-person sessions and alternate assignments for those lab sessions provided. See also the New York State COVID-19 FAQ 4/15/20 p.2; link: https://coronavirus.health.ny.gov/system/files/documents/2020/04/doh_covid19_faqs_updated_041720_2.pdf

XII. CUNY Legal Notice on Live Recordings:
Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.
Queens College of the City University of New York  
Department of Chemistry and Biochemistry  
Organic Chemistry I  

<table>
<thead>
<tr>
<th>Chem 251.4</th>
<th>Lecture Schedule</th>
<th>Fall 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course will be completely on-line. All lectures will be given live during the scheduled class time and will be recorded and be available for you to view later. CUNY policy is as follows:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

**Course Requirements:**

Prerequisites for Chem 251.4: C or better in Chem 114.4 and 114.1  
Pre or corequisite: Chem 251.1 (C or better if prerequisite)

**Note:** a C- in any pre or corequisite will not permit you to take 251.4/251.1!  
You must earn a C or better in Chem 251.4 and 251.1 to go on to Chem 252.

You will need access to Blackboard for exams and handouts, including this syllabus. It is your responsibility to provide a valid e-mail address that you monitor. Announcements will be made via Blackboard and e-mail.

**Lecture:** Tu, Thurs 2:15 - 4:05 PM, on-line (Blackboard Collaborate Ultra – see CUNY policy above; there will not be any student video or profile images but you will be able to ask questions during class)

Professor William H. Hersh, 109 Remsen Hall if we are on campus this year  
Office Hour: Thursday, 1:00 PM - 1:55 PM and by appointment (Blackboard Collaborate Ultra)  
Please use video for Office Hour so I can get to know who you are! Office hour will not be recorded.  
Telephone: 718-997-4144 (to leave messages, since I will not often be there)  
e-mail: william.hersh@qc.cuny.edu - best way to contact me


The text contains many problems - you should do those that appear in the body of the text and at the end of each chapter. These problems will not be graded. They should be done together with the required on-line problems (see below); the on-line problems are not enough by themselves to prepare you to do well in this course.

If you want to understand the lecture material, you must read the textbook chapter before class. For the vast majority of students, it is not possible to understand lecture material if you are seeing it for the first time in class! When you read the textbook and do problems in the text with the reading, plan for a pace of about 4 pages/hour. Do not read it like a novel if you hope to learn the material.

Final piece of advice for how to succeed in organic: ATTEND EVERY CLASS! Attendance has been highly correlated with passing the course with a grade of C or higher. If you have read this, email me at william.hersh@qc.cuny.edu to tell me you have read this (I want to know who has read the syllabus!); please read the rest, especially the section on Course Preparation and Advice.

Classes will always be recorded and will be available for the semester, but occasionally something goes wrong and recordings fail. You can also ask questions if you come to class. I strongly recommend you attend the class live.
REQUIRED ON-LINE PROBLEMS: You are required to purchase access to the Sapling Learning on-line problem web site for this course. The cost is about $42.

Go to www.saplinglearning.com to log in or create an account after around August 17. Under Enroll in a new course, you should see Courses at Queens College. Look for CHEM 251.4 – Fall20 – Hersh. If you need help contact Sapling (now Macmillan) support by opening a service request by filling out the webform at https://macmillan.force.com/macmillanlearning/s/

For each problem there are hints and answers, and for most there is explanatory reading material that you can access at the right hand side of the page in the Resources box under “Help with this topic” linking you to the textbook (labeled “Loudon – Organic Chemistry”), so if you are having trouble with the problems, there is a wealth of information available to help you. There is a training module (with extra credit) that you can complete before you start on the chapter problems.

While studying organic with other students is recommended, you will get the maximum benefit from these problems by doing them on your own, and not doing them at the last minute. On-line problem due dates will be announced in class, and will always be by 2:00 PM on the day recitation problems for that chapter are done in class.

Recommended: Molecular model kit (available on-line, about $20-60; the ~$30 kits on Amazon look good)

OR
Macroscale and Microscale Organic Experiments, Williamson and Masters, 7th ed.

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Midterm Exams</td>
<td>60%</td>
</tr>
<tr>
<td>On-line Homework</td>
<td>10%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

The final exam will be similar to the midterm exams.

Exams will stress lecture material and recitation problems.
Midterm Exams are 75 min, multiple choice, no going back to questions, and will start at 2:15 PM.

There will be a 10 minute break and then a 25 minute class after the first two exams.

Exam 3 on the last day of class will be the same length but there will be no class after.

You are required to scan/photograph your Queens College ID and submit it with each exam.

All exams are open book, open notes, molecular models permitted, but no Internet, no collaborating with anyone.

Cheating of any kind will not be tolerated. Your entire exam grade will be zero, and you will be brought up on charges of academic dishonesty to the College.

See next page for lecture and exam schedule, and CUNY calendar schedule changes.
Approximate Lecture and Examination Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Chp</th>
<th>Topic</th>
<th>Suggested Chapter-End Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 27</td>
<td>1</td>
<td>Bonding and Structure</td>
<td>21-25, 27-28, 30, 32, 36, 39-41, 44, 48</td>
</tr>
<tr>
<td>Sept. 3</td>
<td>2</td>
<td>Alkanes</td>
<td>26-31, 33, 35-36, 38-40, 45-46</td>
</tr>
<tr>
<td>Sept. 10</td>
<td>3</td>
<td>Acids and Bases, Curved Arrows</td>
<td>2-34, 37-42, 44, 47, 54, 58</td>
</tr>
<tr>
<td>Sept. 17</td>
<td>4</td>
<td>Alkenes: Structure and Reactivity</td>
<td>40-55, 57, 58, 60-68</td>
</tr>
<tr>
<td>Sept. 24</td>
<td>5</td>
<td>Alkene Addition Reactions</td>
<td>27-42, 47-48</td>
</tr>
<tr>
<td><strong>Oct. 1 Exam 1 Chapters 1 - 4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct. 8</td>
<td>6</td>
<td>Stereochemistry</td>
<td>26-36, 39-40, 42, 47-49, 51</td>
</tr>
<tr>
<td>Oct. 15</td>
<td>7</td>
<td>Cyclic Compounds, Stereochemistry of Reactions</td>
<td>34-37b, 38, 40-43, 46-49, 51-55, 57, 60, 66, 68, 70</td>
</tr>
<tr>
<td>Oct. 29</td>
<td>9</td>
<td>Alkyl Halides</td>
<td>44-64, 66-70, 79</td>
</tr>
<tr>
<td><strong>Nov. 5 Exam 2 Chapters 5 - 8</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov. 10</td>
<td>10*</td>
<td>Alcohols and Thiols</td>
<td>39-50, 56-59, 64, 65, 68</td>
</tr>
<tr>
<td>Nov. 17</td>
<td>12*</td>
<td>Infrared Spectroscopy (IR) and Mass Spectrometry (MS)</td>
<td>23-29a, 34, 36, 38, 42, 44</td>
</tr>
<tr>
<td>Nov. 24</td>
<td>13</td>
<td>Nuclear Magnetic Resonance Spectroscopy (NMR)</td>
<td>36-45, 48a</td>
</tr>
<tr>
<td><strong>Dec 8 Exam 3 Chapters 9 - 13</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Chapter 11 will be covered next semester.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dec 15 or 17 (tentative), Final Exam: Chapters 1 – 10, 12, 13</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No classes Friday Sept 18, Monday Sept 28, Monday Oct 12,
Tuesday Sept 29 is a Monday schedule
Wednesday Oct 14 is a Monday schedule
Tuesday Nov 3 is Election Day. Vote!! Early, Absentee, or if that day, before or after class.
Wednesday Nov 25 is a Friday schedule

**Course Preparation and Advice:** Understanding the basic concepts from General Chemistry is critical to understanding reactions and mechanisms in organic chemistry. While these concepts are reviewed in Organic Chemistry, it will be assumed that this is the second time you are seeing this and that you understand the concepts.

A brief list from the most recent Queens College textbooks for Chem 113 and 114 is given below; if you are transferring in, try match the topics with those in your textbook. Once you start Chem 251, read the book before lecture (yes, I did say this already up above!); take seriously the fact that you really do need to know and understand every reaction we cover in class (no exceptions). Understanding mechanisms will help you remember the reactions. In most cases hiring a tutor will not help and most likely will be a hindrance because you will rely on the tutor rather than yourself.

**Review Chapters from Zumdahl & Zumdahl Chemistry:**
Chem 113
Chapter 4: Types of Chemical Reactions and Solution Stoichiometry
Chapter 8: Bonding: General Concepts
Chapter 9: Covalent Bonding: Orbitals
Chem 114
Chapter 10: Liquids and Solids ( Liquids only)
Chapter 14: Acids and Bases
Chapter 17: Spontaneity, Entropy, and Free Energy

**or Silberberg Chemistry:**
Chem 113
Chapter 3: Stoichiometry
Chapter 4: Major Classes of Chemical Reactions
Chapter 6: Thermochemistry
Chapter 9: Models of Chemical Bonding
Chapter 10: Shapes of Molecules
Chapter 11: Theories of Covalent Bonding
Chem 114
Chapter 12: Liquids and Solids ( Liquids only)
Chapter 18: Acid – Base Equilibria
Chapter 20: Thermodynamics: Entropy and Free Energy
Course Objectives: Students will learn structural organic chemistry, including bonding, functional groups, stereochemistry, and conformational analysis, as well as the nomenclature for labeling these compounds and structures. In the first semester of organic chemistry a limited number of functional groups, including alkanes, alkenes, alkyl halides, and alcohols, will be introduced along with their reactions. The mechanisms of those reactions and their common mechanistic features will be stressed. Understanding these mechanisms, rather than their rote memorization, is a principal objective, as only understanding of mechanisms will allow new reactions to be understood. Applications of reactions to multistep synthesis will be introduced. Determination of structures of compounds by spectroscopy including IR, MS, and NMR will be introduced. At the conclusion of this semester students will be prepared to start doing organic research if they so choose.

Assessment: Problem-solving ability will be tested using exams and on-line graded problems; while memorization of naming and drawing conventions as well as reactions will be required, the emphasis will be on understanding structures of organic compounds and their mechanisms of reaction. While the on-line homework problems will be graded, the intent is to help student learning, rather than provide significant assessment. These and additional sample problems and answers both in the book and on the course web site will be representative of the material that will be found on exams.

GRADE KEY. This course is not graded on a curve. Everyone in the class can get an A, or everyone can get an F. There is no predetermined percentage of the class that will get any particular grade. The key for all exams is shown below, except for + and – cutoffs. For instance, while “A” is shown as 80-100, an average of 80 will be an A-, and while “B” is shown as 65-79, the cutoffs are approximately 1/3 in each range, i.e. around 65-69 B-, 70-74 B, 75-79 B+. The exact ranges will not be given out except for the C cutoff, since you need a C to go on to further chemistry courses.

The ranges given will never be raised, but they have on occasion been lowered if a test was too hard.

80-100 A
65-79  B
55-64  C
50-54  C-
40-49  D
0-39   F
Queens College of the City University of New York  
Department of Chemistry and Biochemistry  
Organic Chemistry I  
Chem 251.1  
Lab Schedule (subject to change)  
Fall 2020

This course will be partly on-line and partly in-person. On-line classes will be given live and will be recorded and be available for you to view later. CUNY policy is as follows:

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

On-line classes during weeks 1, 2, and 12 – 14 will be held during your regular lab time. During weeks 3 – 11, labs will run at least half-capacity to ensure social distancing. Your lab instructor will place you in one of Groups A, B, or C. You will only be permitted in lab when it is your group's week. Your lab instructor will arrange a time with all groups outside of lab hours to conduct the on-line labs during those 9 weeks.

NOTE: For students who cannot participate in the in-person labs due to health concerns:
Send an email to your lab instructor and the faculty lab coordinator (Prof. Hersh, william.hersh@qc.cuny.edu):
I cannot attend in-person labs because of a pre-existing health condition that puts me at highest risk for getting very sick from COVID-19 __ see NYS COVID-19 FAQs 4/15/20. p2:
And/Or
I cannot attend in-person labs because I live with a person who has a pre-existing health condition or is 65 or older __
The lab coordinator will confirm your exemption and the lab instructor will provide you with the alternate assignments for those labs.

Course Requirements:
Prerequisites for Chem 251.1: C or better in Chem 114.4 and 114.1
Pre or corequisite: Chem 251.4 (C or better if prerequisite)

OR
Macroscale and Microscale Organic Experiments, Williamson and Masters, 7th ed.

For the Macroscale and Microscale text book, all experiments to be done are the Macroscale version.

In lab experiments:
Group A will do the in-person labs Weeks 3, 6, 9
Group B will do the in-person labs Weeks 4, 7, 10
Group C will do the in-person labs Weeks 5, 8, 11

<table>
<thead>
<tr>
<th>Week</th>
<th>Experiment</th>
<th>Williamson Chp (Page)</th>
<th>Williamson &amp; Masters Chp (Page)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Online Grp A-C</td>
<td>I. Melting Point Determination – you will do mp’s in Lab 3A, 4B, 5C</td>
<td>Chp 4 (50-57)</td>
</tr>
<tr>
<td>3A, 4B, 5C</td>
<td>Check-In: Check kits. Crystallization i. Isolation of Crystalline Acetylsalicylic Acid from Aspirin tablets (Lab Notes)</td>
<td>Lab Notes Chp 3 (45-6)</td>
<td>Lab Notes Chp 4 (82-3)</td>
</tr>
</tbody>
</table>
### Table of Experiments

<table>
<thead>
<tr>
<th>Experiment Description</th>
<th>Chp</th>
<th>Chp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination of Boiling Point via Distillation and via Micro Boiling Point Method</td>
<td>Chp 5 (65) Chp 4 (57-60)</td>
<td>Chp 5 (87) Chp 3 (55-60)</td>
</tr>
<tr>
<td>Isolation of Clove Oil from Cloves</td>
<td>Chp 6 (77) Exp 3</td>
<td>Chp 6 (103) Exp 5</td>
</tr>
<tr>
<td>Preparation of Cyclohexene</td>
<td>Chp 19 (245)</td>
<td>Chp 19 (336)</td>
</tr>
<tr>
<td>Extraction: Isolation of Eugenol from Clove Oil. Thin Layer Chromatography of Clove Oil and of Eugenol</td>
<td>Continues from Chp 6 p 85-86</td>
<td>Continues from Chp 6 p 114</td>
</tr>
<tr>
<td>Nucleophilic Substitution Reactions of Alkyl Halides</td>
<td>Chp 17</td>
<td></td>
</tr>
<tr>
<td>Preparation of 1-Bromobutane &amp; Check out</td>
<td>Chp 16 (220)</td>
<td>Chp 16 (313)</td>
</tr>
<tr>
<td>Oxidation of Cyclohexanol</td>
<td>22 (264) Exp 2</td>
<td>Chp 22 (358) Exp 3</td>
</tr>
<tr>
<td>Alkenes by Alcohol Dehydration – E1 Reaction</td>
<td>Chp 11 8th ed.</td>
<td>Chp 10</td>
</tr>
<tr>
<td>Hydroboration of 1-octene</td>
<td>Video link will be provided</td>
<td></td>
</tr>
<tr>
<td>Isolation of cholesterol from gall stones/molecular models</td>
<td>Chp 20 8th ed.</td>
<td>Chp 20</td>
</tr>
<tr>
<td>Catch-up and questions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*It is important that you check the Chemistry 251 “Lab Notes” for details of all experiments, because there are sometimes significant changes from the procedures described in the laboratory manual.*

*If you miss a lab due to illness or other excused reason, you must make up the lab within ONE week since reagents and compatible waste containers will not be available after that. The make-up forms are available at the stockroom, and must be signed by the instructor in whose lab you carry out the work, and by your instructor for permission. Due to the hybrid nature of the course, contact your lab instructor immediately and take that week’s on-line lab instead.*

**Safety glasses and lab coats are required in the laboratory at all times – even if you already wear glasses.**

**Do not bring food, chewing gum, coats or backpacks into the lab – use the hall lockers.**

**All experiments are to be done individually– no team experiments.**

**Course Objectives:** Students will learn basic organic lab safety, waste disposal, and techniques, and will learn how to keep an organic laboratory notebook. At the conclusion of this semester students will be prepared to do organic research if they so choose.

**Assessment:** You will need to keep a neat, legible laboratory notebook; a lined 100 page, 9 ¾ x 7 ½ inch composition book is best. Your lab instructor will periodically check your notebook, so it must be up-to-date, and will announce when it will be collected for grading.

75% - lab book (Report: 40%, results, 35%)
15% - unannounced lab quizzes (these will test lab material, not lecture material)
10% - your lab technique (including neatness, skill, attention to detail and safety)
Chemistry 252.4 (Organic Chemistry II) – Fall 2020
(Pre-requisite: Grade of C or Higher in Chemistry 251.4 & 251.1)
Department of Chemistry & Biochemistry
Queens College – CUNY
65-30 Kissena Blvd., Flushing, NY 11367

Lecture & Recitation – Tuesday & Thursday (4:20 – 6:10 pm); online
Instructor: Professor Yu Chen, Remsen 206 F
Email: yu.chen1@qc.cuny.edu
Office Hours: Tuesday & Thursday 3:00 pm to 4:00 pm (online)

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

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Ancillary:
2) Online homework from Sapling Learning (see page #3 for details, and more details will be announced in the first lecture on Aug. 27th, 2020).


Examinations: There will be three 100-point mid-term exams (open book exams), and one 100-point final exam (open book exam), to be held online as scheduled below.
**Grades:** The online homework from Sapling Learning is counted as 15% in the final grade. The lowest grade of the four exams is counted as 10%; and each of the rest three exams is counted as 25% in the final grade.

*(Note: There is no make-up exam.)* If a student is sick on a scheduled exam day and cannot take the exam, he/she should provide a medical doctor’s note to Dr. Chen immediately after he/she recovers. Each of the rest three exams he/she takes is counted as 30% in the final grade together with 10% online homework grade.

**Grading Scale:** 90-100 (A); 86-89 (A-); 82-85 (B+); 78-81 (B); 74-77 (B-); 70-73 (C+); 65-69 (C); 60-64 (C-); 50-59 (D); < 50 (F).

**General Guidelines:** You must attend all the class examinations and laboratory sessions. In case of an emergency that you are unable to attend a class examination or a laboratory session, a legal valid proof of absence must be presented. In the event that you are unable to furnish a valid proof of absence within reasonable time periods, a zero grade will be assigned for the examination. You must be able to use Blackboard for accessing the course materials. It is strongly recommended that you use Queens College email account for effective communication with the instructor. Any other specific information regarding the course will be provided by the instructor in the first lecture, scheduled on Aug. 27th, 2020.

**Schedule of Classes and Examinations:**

2. Chapter 14 – Alkynes – 9/8; 9/10
3. Chapter 15 – Dienes, Resonance, and Aromaticity – 9/15; 9/17
4. Chapter 16 – Chemistry of Benzene and Its Derivatives – 9/22; 9/24
5. Chapter 17 – Allylic and Benzylic Reactivity – 10/1; 10/6

**First Mid-term Examination – Chapters 11 through 16 – 10/8**

6. Chapter 18 – Aryl and Vinylic Halides, Phenols, and Transition Metal Catalysis – 10/13; 10/15
7. Chapter 19 – Aldehydes and Ketones – 10/20; 10/22
8. Chapter 20 – Carboxylic Acids – 10/27; 10/29
9. Chapter 21 – Carboxylic Acid Derivatives – 11/3; 11/5; 11/10

**Second Mid-Term Examination – Chapters 17 through 20 – 11/12**

10. Chapter 22 – Enolate Ions, Enols, and α,β-Unsaturated Carbonyl Compounds – 11/17; 11/19; 11/24
11. Chapter 23 – Amines – 12/1; 12/3;

**Third Mid-Term Examination – Chapters 21, 22 and 23 – 12/8**

**FINAL EXAMINATION – Chapters 1-23; but mostly Chapters 11 and 14-23 – TBA**

*: A thirty minute recitation will be held in class after the lecture of each chapter.
**FROM: Sapling Learning - Organic Chemistry Question Sets**

Sapling's chemistry questions are delivered in a web browser to provide real-time grading, response-specific coaching, improvement of problem-solving skills, and detailed answer explanations. Dynamic answer modules enable one to interact with 3D models and figures, utilize drag-and-drop synthetic routes, and draw chemical structures - including stereochemistry and curved arrows. Altogether, Sapling is cheaper than a tutor, provides more value than a solutions manual, and goes beyond a mere assessment exercise to give a learning experience.

We will be using Sapling Learning for graded homework. To get started:

1. Go to [http://saplinglearning.com](http://saplinglearning.com) and click "US Higher Ed" at the top right.
2. a) If you already have a Sapling Learning account, log in and skip to step 3.
   b) If you have a Facebook account, you can use it to quickly create a Sapling Learning account. Click the blue button with the Facebook symbol on it (just to the left of the username field). The form will auto-fill with information from your Facebook account (you may need to log into Facebook in the popup window first). Choose a password and timezone, accept the site policy agreement, and click "Create my new account". You can then skip to step 3.
   c) Otherwise, click "create account". Supply the requested information and click "Create my new account". Check your email (and spam filter) for a message from Sapling Learning and click on the link provided in that email.
3. Find your course in the list (listed by subject, term, and instructor) and click the link.
4. Select your payment options and follow the remaining instructions.
5. Work on the Sapling Learning training materials. The activities, videos, and information pages will familiarize you with the Sapling Learning user environment and serve as tutorials for efficiently drawing molecules, stereochemistry, etc. within the Sapling Learning answer modules. These training materials are already accessible in your Sapling Learning course.
6. • Once you have registered and enrolled, you can log in at any time to complete or review your homework assignments.
   • During sign up - and throughout the term - if you have any technical problems or grading issues, send an email to support@saplinglearning.com explaining the issue. The Sapling support team is almost always more able (and faster) to resolve issues than your instructor and TAs.
   • To optimize your Sapling Learning experience, please keep your internet browser and Flash player up to date and minimize the use of RAM-intensive programs/websites while using Sapling Learning.
Instructor: Prof. Guoxiang (Emma) Hu, Guoxiang.hu@qc.cuny.edu
Office hours: Fri, 3:00-5:00 pm in Blackboard Collaborate

Course description: This course will discuss periodic trends across the entire periodic table in the category of acid-base chemistry, coordination (complex-ion) chemistry, precipitation chemistry, and oxidation-reduction chemistry. Principles that help explain these trends in chemical reactivity will also be discussed. Symmetry and molecular orbital theory will be introduced after you have developed an understanding of fundamental trends across the periodic table, which allows molecular orbital theory to be more broadly applied in subsequent chapters. This course is not only to chemistry students, but also to other professionals in other fields of science in which inorganic chemistry has become important. There is no physical chemistry prerequisite, but a background in General Chemistry, and enrollment in a Foundations of Organic Chemistry course are assumed.

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who unmute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.


Other suggested references: Inorganic Chemistry by Catherine Housecroft; Inorganic Chemistry by Mark Weller, Tina Overton, Jonathan Rourke, and Fraser Armstrong
**Attendance:** You are required to attend class and arrive on time. Excessive absences and tardiness will affect your grade.

**Homework:** Homework will be given in class and on BlackBoard/Teams. Homework are usually due in one week and at the beginning of the class. Late homework, for example homework turned in at the end of the class, will not be accepted. *Examinations may be based on the homework!*

**Examinations:** You will have one mid-term and one final examination. Make-ups are discouraged. Mid-term exam will cover the material for Chapter 1-6, with 16% from each chapter. Final exam will be comprehensive with 15% from Chapter 1-6, and 85% from Chapter 7-12 (with 14% from each chapter).

**Grading and evaluation:**

The grade is a 10 point grade scale with minimal minus grades:

A+ (96%-100%), A (90%-95%)
B+ (86%-89%), B (80%-85%)
C+ (76%-79%), C (70%-75%), C-(66%-69%)
D (50%-65%), F (below 50%)

The evaluation is based on:

Participation (5%) + Homework (12x5%=60%) + Mid-term (15%) + Final (20%)

**Academic honesty:** Plagiarism or any other form of cheating is not tolerated. The student perpetrating such an act will receive zero for the assignment in question and a warning and/or referral to the Chairman and/or the Dean, along with other possible penalties, including automatic failure of the course.

**Topics and tentative course schedule** (roughly one chapter/week):

Chapter 1 (09/01-09/04): Periodic Trends in Fundamental Properties of Atoms and Simple Ions
Chapter 2 (09/08-09/11): Monatomic Ions and Their Acid–Base Reactivity
Chapter 3 (09/15-09/22): Polyatomic Ions: Their Structures and Acid–Base Properties
Chapter 4 (09/25-10/02): Ionic Compounds in the Solid State, in Minerals, and in Solution
Chapter 5 (10/06-10/09): Trends in Coordination Equilibria
Chapter 6 (10/13-10/16): Principles of Oxidation–Reduction Reactivity

**10/20: Mid-term**

Chapter 7 (10/27-10/30): Introduction to Transition Metal Complexes
Chapter 8 (11/03-11/06): Oxides and Silicates as Materials

Chapter 9 (11/10-11/13): The Underlying Reasons for Periodic Trends

Chapter 10 (11/17-11/24): Symmetry

Chapter 11(12/01-12/04): Molecular Orbital Theory: A Bridge Between Foundational and Advanced Inorganic Chemistry

Chapter 12(12/08-12/1111/16): The Elements as Molecules and Materials

12/15: Final
CHEM 341.1 sec. 1- Instrumental Methods Laboratory

Lecture Hour: Tu, 1:50 -2:40 PM, 354 RE

Experimental: Tu, 2:50 - 5:40 PM, 354 RE

SYLLABUS

I. Laboratory Course Format- In-person, on campus unless otherwise notified by the State of New York, the City University of New York, and the Department of Chemistry and Biochemistry.


III. Other Required Materials: Scientific calculator, bound laboratory notebook, flash drive or SD card, safety goggles, lab coat

IV. Some Suggested Reference Sources:

Harris Quantitative Chemical Analysis, seventh (or any) ed. W. H. Freeman and Company New York 2001 (On reserve in Rosenthal Library)
Atkins, de Paula Physical Chemistry, ninth ed. (or any) W. H. Freeman and Company New York 2002 (On reserve in Rosenthal Library)
Bishop Learning with LabVIEW 8 Prentice-Hall New York 2006 (On reserve in Rosenthal Library)

V. Attendance: Both laboratory and lecture (recitation) sessions are required. Excessive absences in either will adversely affect your grade. Class participation will positively affect your grade. The last meeting is mandatory.

VI. Safety: APPROVED MASKS COVERING NOSE AND MOUTH, goggles, long pants or skirts, closed toe shoes, and long hair tied back are required. Eating, drinking, gum chewing, horseplay, stunt experiments, and contact lenses are not allowed; wear glasses to lab if needed. Safety shower, eyewash, and fire extinguisher locations must be noted. Chemical waste handling protocols must be observed; if in doubt ask! Points will be deducted for unsafe practices or violations of waste protocols, and you may be ejected from lab and receive a zero (0) for that experiment.

VII. Course Grade: The course grade will be based on the total points of all assignments and quizzes, as stated above, which will constitute 85% of the grade, the remaining 15% will be from performance in the laboratory, the grand total, minus any deductions for safety infractions, will be used to determine the letter grade for the course; all as mentioned above in Part VII.A.1-5.
VIII. Schedule:  *Schedule is subject to change as semester progresses.*

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9/1</td>
<td>Introduction; Check-in; Safety Lecture; Lab Reports and Syllabus</td>
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<tr>
<td>2</td>
<td>9/8</td>
<td>Lab 7</td>
<td>Lab 9</td>
<td>Lab 4</td>
<td>Lab 5</td>
<td>9/15, 22</td>
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<td>3</td>
<td>9/15</td>
<td>7</td>
<td>9</td>
<td>Lab 5</td>
<td>Lab 4</td>
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<td>4</td>
<td>9/22</td>
<td>Lab 4</td>
<td>Lab 5</td>
<td>Lab 7</td>
<td>Lab 9</td>
<td>10/6, 13</td>
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<td>5</td>
<td>10/6</td>
<td>Lab 5</td>
<td>Lab 4</td>
<td>7</td>
<td>9</td>
<td>10/13, 10/13</td>
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<tr>
<td>6</td>
<td>•10/13 QUIZ 1</td>
<td>Lab 9</td>
<td>Lab 7</td>
<td>Lab 1</td>
<td>Lab 2</td>
<td>10/27, 11/3</td>
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<td>7</td>
<td>10/20</td>
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<td>1</td>
<td>2</td>
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<td>8</td>
<td>10/27</td>
<td>Lab 1</td>
<td>Lab 2</td>
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<tr>
<td>9</td>
<td>11/3</td>
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<td>Lab 9</td>
<td>Lab 7</td>
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<td>11</td>
<td>11/17</td>
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<td>Lab 1</td>
<td>Lab 2</td>
<td>Lab 1</td>
<td>12/1, 12/1</td>
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<tr>
<td>12</td>
<td>•11/24 QUIZ 2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>13</td>
<td>12/1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td></td>
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<tr>
<td>14</td>
<td>12/8</td>
<td>REQUIRED ATTENDANCE- Final papers due, Checkout; Cleanup- all groups</td>
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</table>

**Experiment List**

<table>
<thead>
<tr>
<th>Lab #</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Programming a NXT LEGO Mindstorms Robot with LabVIEW</td>
</tr>
<tr>
<td>2</td>
<td>Building a Digital Thermometer Using a DAQ in LabVIEW</td>
</tr>
<tr>
<td>4</td>
<td>IR Spectroscopy: Determination of Xylenes Using an Internal Standard</td>
</tr>
<tr>
<td>5</td>
<td>Fluorescence Determination of Quinine in Tonic Water</td>
</tr>
<tr>
<td>7</td>
<td>Identification of Some Constituents Using HPLC</td>
</tr>
<tr>
<td>9</td>
<td>Separation and Identification of Some Constituents Using ESI-MS</td>
</tr>
</tbody>
</table>

IX. Work in the Laboratory

**A. Safety-** Observe all safety protocols, use caution; see § VI, VII above and X.A.5 below.

**B. Equipment Usage-** You will likely be assigned to work with other students in small groups or teams on the same experiment or equipment. However, your submissions to me are to be solely your own. You must leave the equipment and work areas at the end of the lab period clean and neat; again, observe safety protocols. Put away all glassware, other equipment, and chemicals after use. When finished with an analytical instrument, *do not turn off the computer; simply log out of it.* (See Section VIII. C, below.)
IX. C. Code of Conduct

1. Plagiarism- Plagiarism or any other form of cheating is not tolerated. The student perpetrating such an act will receive a zero (0) for the assignment in question and a warning, along with other possible penalties, for a first offense. A second offense by the student will result in automatic failure of the course (F) and referral to the Chairman and/or the Dean. A failure to properly cite any sources, including figures, charts, tables, and artwork, in a submission or work is also considered plagiarism.

2. Laboratory Conduct - No horseplay. No offensive language. No other activities in the laboratory or classroom that are not relevant to the coursework. Return all items used to proper places, keep equipment and work areas clean and neat. Strictly observe all safety protocols.

D. Lab Computers - The computers in the laboratory are for use with the experiments and related work. They are not for personal recreational use. If a logon is required, please log off but do not shut down when finished for the day.

X. Work to Be Submitted

A. Grading

1. All Reports- Hard copies are due on the dates listed above. Each is graded for completeness and succinctness of content, clarity and effectiveness of presentation, and proper formatting on the basis of 100 points. Be aware that the experiment schedules differ for different groups.

   a. Three-Week Reports- There are two, and together are to be 32% of grade total.
   b. Two-Week Reports- There are two, and together are to be 22% of grade total.
   c. One-Week Reports- There are two, and together weighted 12% of grade total.

2. Notebooks- will be sporadically checked; points deducted at my discretion, if not properly used and maintained, and weighted to be 5% of grade total.

3. Quizzes- There will be two, on the material presented in our lecture (recitation) hour, and together will be 14% of your grade total.

4. Laboratory Performance- will be subjectively evaluated by me and weighted to be 15% of grade total.

5. Safety- Violations of safety rules will result in points deducted from course total at my discretion.

B. Report Structure

1. Format- Reports must be written in the style of a scientific journal article. Refer to ACS or APS style guides, or to examples in papers published in chemistry or physics journals.
X. B. 1. a. Heading- title, author(s: your name, name of people in your group),
department and college

b. Abstract- This one very short paragraph summing up the whole paper.

c. Introduction- Explain what the various approaches that can be taken to perform
the experiment and any theoretical and background information.
The last paragraph should describe the procedure and objective.

d. Experimental section- describe what you did— you may insert figures, graphs,
references, tables, if this will better elucidate your text.

e. Results- include data here. While the original data is to be recorded in your lab
notebook, they must be reproduced in this section of the paper.

i. Calculations - do include figures (graphs, charts, diagrams) and tables.

ii. Error Analysis- Discuss your calculations, accuracy, including error analysis.
Error analysis should be included for all calculations.

f. Discussion- What do your results mean? (This is where you make your
scientific conclusions.)

g. Conclusions or Summary- This is more than just a simple synopsis. What is
noteworthy or can be learned from the work?

h. References- Reference citations are to be listed in this section, with the
annotation superscripts in appropriate places throughout the paper.  
*Do NOT use Internet sources* for your citations. Use actual
scientific literature, as peer-reviewed journals, textbooks, etc. (Of
course, you may use the Internet to locate, for example, a journal
article or book.)

2. Submission of Reports

a. Hard copies of assignments must be submitted for credit and are due on the
scheduled dates, unless otherwise scheduled or notified.

b. *Do not* submit your papers late; late papers are *not acceptable and will receive
a zero (0) score.*

c. Electronic copies *must also be submitted, but are not acceptable for credit.*

d. If you miss an entire experiment due to absence, it may be made up. See me
for the possibility of making up the experiment.

XI. Communication: I can be reached preferably via the discussion group for our course on
BlackBoard, and secondarily via e-mail, but only for messages that
don’t belong on BlackBoard. I encourage everyone to ask questions,
discuss course topics, and answer others’ questions on Blackboard, too!
(Of course, I will check the answers.) Course materials, such as manual
of experiments, this syllabus, and other, ancillary materials will be
posted on Blackboard. There will be *no office visits this semester.*
XII. COVID-19 Concerns:
If you cannot attend class, which is, to date, comprised of in-person sessions, due to COVID-19 concerns, i.e., you have a medical condition or if you live with someone who has pre-existing medical conditions which put you or them at high medical risk from COVID-19 exposure, inform me and you may be exempted from coming to class and alternate assignments provided. See also the New York State COVID-19 FAQ 4/15/20 p.2; link: https://coronavirus.health.ny.gov/system/files/documents/2020/04/doh_covid19_faqs_updated_041720_2.pdf

XIII. CUNY Legal Notice on Live Recordings:
Students who may participate in this class online with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who unmute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.
Chemistry 371/650 Biochemistry I – Fall 2020

Professor Susan A. Rotenberg (Susan.Rotenberg@qc.cuny.edu)
Office hour: Mondays 10AM-11AM, or by appointment
A weekly office hour will be held via Blackboard Collaborate Ultra.


Lecture: Tuesdays and Thursdays, 12:10PM – 2:00PM on Blackboard Collaborate Ultra
Lectures will be synchronous and recorded (asynchronous). A Discussion Forum will be available.

Course goals/learning objectives: Students will gain a strong foundation in the structure and function of macromolecules (proteins, lipids and carbohydrates) and their roles in biological cells. In addition, students will gain an understanding of metabolic pathways and the principles of their regulation. We will explore the ways pathways are coordinated under different conditions.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Chapter(s)</th>
<th>Week#</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Foundations, Water</td>
<td>1, 2</td>
<td>1</td>
<td>Aug 27</td>
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<tr>
<td>Amino Acids, Peptides, and Proteins</td>
<td>3</td>
<td>2</td>
<td>Sept 1, 3</td>
</tr>
<tr>
<td>Protein Structure, Analysis and Purification</td>
<td>3, 4</td>
<td>3, 4</td>
<td>Sept 8, 10</td>
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<tr>
<td>Protein Function: Hemoglobin and Allosteric Proteins</td>
<td>5, 4</td>
<td>5, 6</td>
<td>Sept 15, 17</td>
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<tr>
<td>Enzyme Catalysis and Kinetics</td>
<td>6</td>
<td>5-6</td>
<td>Sept 22, 24; Oct 1</td>
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<tr>
<td><strong>EXAM 1</strong> (Tuesday, Oct 6)</td>
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<tr>
<td>Carbohydrates</td>
<td>7</td>
<td>7</td>
<td>Oct 8</td>
</tr>
<tr>
<td>Introduction to Metabolism</td>
<td>13</td>
<td>8</td>
<td>Oct 13</td>
</tr>
<tr>
<td>Glycolysis, Gluconeogenesis, PPP</td>
<td>14</td>
<td>8-9</td>
<td>Oct 13, 15, 20</td>
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<tr>
<td>Glycogen Metabolism</td>
<td>15</td>
<td>10</td>
<td>Oct 22, 27</td>
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<tr>
<td>The Citric Acid Cycle</td>
<td>16</td>
<td>11</td>
<td>Oct 29, Nov 3</td>
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<tr>
<td><strong>EXAM 2</strong> (Thursday, Nov 5)</td>
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<tr>
<td>Electron Transport and Oxidative Phosphorylation</td>
<td>19</td>
<td>12</td>
<td>Nov 10, 12</td>
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<tr>
<td>Lipids and Cell Membranes</td>
<td>10, 11</td>
<td>13</td>
<td>Nov 17</td>
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<tr>
<td>Lipid Metabolism</td>
<td>17</td>
<td>13</td>
<td>Nov 19, 24</td>
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<tr>
<td>Amino Acid Metabolism</td>
<td>18</td>
<td>14</td>
<td>Dec 1, 3</td>
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<tr>
<td>Metabolic Inter-Relationships</td>
<td>12, 23</td>
<td>14</td>
<td>Dec 8</td>
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<tr>
<td><strong>EXAM 3</strong> Comprehensive Final Exam (date to be announced)</td>
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</tbody>
</table>

**SCHEDULE CHANGES** Tuesday, Sept 29th will follow a Monday schedule.

**GRADING** Each exam will count as 25%, quizzes/assignments will count as 20%, and participation in discussion forums will count as 5% of the final grade.

**MAKEUP POLICY** In general, there will be no makeup exams given. The only acceptable excuse is if you provide written documentation of serious illness, accident, or family-related death. If you miss more than one exam, you must arrange to re-take the test when the course is offered again.
REASONABLE ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES
Students with disabilities needing academic accommodation should register with the Special Services Office by emailing QC.SPSV@qc.cuny.edu. For more information about services available to Queens College students, visit the Office of Special Services website: https://www.qc.cuny.edu/studentlife/services/specialserv/Pages/default.aspx.

CUNY POLICY ON ACADEMIC INTEGRITY
Academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/.

ONLINE ETIQUETTE
Please maintain a professional demeanor when posting online. You can be respectful even when you have a difference of opinion. Treat others as you would want to be treated yourself. Don’t type in all caps, as that is the online equivalent of shouting. If you need to emphasize a word or phrase, use italics.

Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the “chat” feature, which allows students to type questions and comments live.

COUNSELING SERVICES
Counseling Services are available to any Queens College student. This office assists students with personal concerns that can affect their enjoyment of and success in college. Services are free and confidential. All sessions take place on Zoom or by Telephone, depending on student preference. To make an appointment, students should call 718-997-5420 and leave a message with their phone number and CUNY ID. They may also e-mail counselingservices@qc.cuny.edu.

8/26/2020
**BIOCHEMISTRY LABORATORY (CHEMISTRY 376) – FALL 2020**

**MONDAY SECTION**  Recitation: Online 1:40 PM - 2:30 PM; LAB: 2:40 – 5:30 PM (mostly on-line)  
Instructor: Preeni Abeyweera (tpabeyweera@gmail.com)

**TUESDAY SECTION**  Recitation: Online 8:15AM – 9:05 AM; LAB 9:15 AM – 12:05 PM (mostly on-line)  
Instructor: Angela Fried (afried@gradcenter.cuny.edu)

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tues</th>
<th>Laboratory Exercise</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/31</td>
<td>9/1</td>
<td>Bioinformatics  (on-line) 3 hrs (Handout)</td>
</tr>
<tr>
<td>9/14</td>
<td>9/8</td>
<td>Bioinformatics  (on-line) 3 hrs</td>
</tr>
<tr>
<td>9/21</td>
<td>9/15</td>
<td>Bioinformatics  (on-line) 3 hrs</td>
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</tbody>
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**During these 3 weeks you will perform the following exercises:**

1. Find databases and analyze a DNA sequence
2. Sequence homology, plasmids & cloning; analyze restriction fragments
3. Compare and identify related protein sequences; multiple sequence alignment [http://www.sumanasinc.com/webcontent/animations/content/plasmidcloning.html](http://www.sumanasinc.com/webcontent/animations/content/plasmidcloning.html)
4. **Problem-based learning module: In silico analysis of DNA and protein sequences.**
   From 5 unknown sequences, determine segments having sequence homology, use BLAST to validate existence, identify putative proteins;

| 9/29Tu | 9/22 | Labster modules: mRNA extraction, DNA Sequencing (on-line); on-line discussion 3 hrs |
| 10/5   | 10/6 | Plasmid restriction analysis (on-line) 3 hrs; see Lab Manual |

| 10/14W | 10/13 | The basics of primer design for PCR (on-line) 3 hrs (analysis and mutagenesis), PCR analysis of gene expression in cells (RT-PCR) [https://www.youtube.com/watch?v=QwT-Tj89VLo](https://www.youtube.com/watch?v=QwT-Tj89VLo) Labster module: Polymerase Chain Reaction |
| 10/19  | 10/20 | Separation of proteins by chromatography (Labster module: Protein Synthesis); (on-line) 3 hrs Size exclusion chromatography; analysis of data |
| 10/26  | 10/27 | Affinity chromatography: Isolation and assay of lactate dehydrogenase (on-line/in-class*) 3 hrs |
| 11/2   | 11/3  | SDS-PAGE of column fractions; analysis of data (on-line/in-class*) 3 hrs |
| 11/9   | 11/10 | Antibodies as tools (Labster modules: ELISA, Gene Regulation/Western blot); (on-line) 3 hrs |
| 11/16  | 11/17 | Enzyme Kinetics – Week 1 (Labster module) (on-line); 3 hrs |
| 11/23  | 11/24 | Enzyme Kinetics – Week 2 (on-line/in-class*); assays of glucose oxidase; analysis of data 3 hrs |
| 11/30  | 12/1  | Introduction to Molecular Modelling - Week 1: Analysis of protein structure (pyMOL) (on-line) 3 hrs |
| 12/7   | 12/8  | Introduction to Molecular Modelling - Week 2: Analysis of protein structure (pyMOL) (on-line) 3 hrs |

**REVIEW**

On Tuesday 9/29 and Wednesday 10/14, a Monday schedule will be observed.

**ALL RECITATIONS WILL BE CONDUCTED ON-LINE AND WILL BE RECORDED.** It is strongly recommended that students attend the live on-line sessions.

(*) **IN-CLASS LABS** to be held Mondays (10/26, 11/2, and 11/23) and Tuesdays (10/27, 11/3, and 11/24) will take place in Remsen 352 and Remsen 355. Occupancy limits will be in effect.

8/27/2020
**ASSESSMENT** For each lab exercise, a formal written report or set of responses to on-line exercises will be due 1 week following the conclusion of each module. Quizzes will be given at the discretion of the instructor. The course grade will be based on: Reports (40%), Final Exam (30%), Quizzes (25%), and Participation (5%).

A final exam will be given at a date and time to be announced later.

**PUBLIC HEALTH AND SAFETY POLICY** For in-person lab exercises, everyone is required to wear a mask, gloves, and a disposable lab coat. Students will be spaced 6-feet apart to maintain social distancing. Participants will have their temperature checked each time.

In the event of an unanticipated outbreak, all in-person exercises will be converted to on-line exercises.

Students at risk or with health concerns that may not meet the technical requirements of the ADA, may request that they participate only in on-line exercises by writing the Lab Coordinator (Susan.Rotenberg@qc.cuny.edu) and providing documentation from a health care practitioner. If permission is granted, students are responsible for the material and will be required to view the instructional video and to analyze pre-formulated data.

**REASONABLE ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**

Students with disabilities needing academic accommodation should register with the Special Services Office by emailing QC.SPSV@qc.cuny.edu.

For more information about services available to Queens College students, visit the Office of Special Services website: https://www.qc.cuny.edu/studentlife/services/specialserv/Pages/default.aspx.

**CUNY POLICY ON ACADEMIC INTEGRITY**

Academic dishonesty is prohibited in The City University of New York and is punishable by penalties, including failing grades, suspension, and expulsion as provided at: https://www.cuny.edu/about/administration/offices/legal-affairs/policies-procedures/academic-integrity-policy/.

**ONLINE ETIQUETTE**

Please maintain a professional demeanor when posting online. You can be respectful even when you have a difference of opinion. Treat others as you'd want to be treated yourself. Don't type in all caps, as that is the online equivalent of shouting. If you need to emphasize a word or phrase, use italics.

*Students who participate in this class with their camera on or use a profile image are agreeing to have their video or image recorded solely for the purpose of creating a record for students enrolled in the class to refer to, including those enrolled students who are unable to attend live. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.*

**COUNSELING SERVICES**

Counseling Services are available to any Queens College student. This office assists students with personal concerns that can affect their enjoyment of and success in college. Services are free and confidential. All sessions take place on Zoom or by Telephone, depending on student preference. To make an appointment, students should call 718-997-5420 and leave a message with their phone number and CUNY ID. They may also e-mail counselingservices@qc.cuny.edu.