

Chem10200: General Chemistry 1 Fall 2019

Friday 9:10 – 11 am, Assembly Hall (118N)

Instructor: Dr. Nadezhda Kobko-Litskevitch

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Office Hours: **Wed 3-5 pm** (1323HN)



Goal of the course: This is the first semester of a 2-semester general chemistry sequence that begins to prepare you for a science-based career. General Chemistry I is a demanding course and while its primary objective is to introduce you to the fundamental principles that underlie the chemical sciences, to achieve success in this course you will need to organize large quantities of information in coherent ways so that you are able to recall and apply your knowledge. Organization of your time will be essential!

The General Chemistry course is run using a flipped classroom model. In this model you will watch videos and complete online homework on your own and then come to class to participate in peer-learning activities: workshops (during your 1 hour recitation) and iClicker sessions (during our 2 hour lecture every Friday). We suggest that each week before Tuesday morning you watch the Topic videos and complete the LGA survey(s) (please see below).

You should plan to spend **at least 10-15 hours per week studying chemistry**: watching videos, doing your online homework, engaging with your classmates, and learning the material. **It is your responsibility to prepare yourself for every topic before you come to class to engage in iClicker or workshop activities.** To be successful in this course **you must take detailed notes when you watch the course videos** – just like you would take detailed notes during a lecture. These notes provide the backbone for your learning.

During class on Fridays (9:10-11am) you will engage in a set of peer-learning activities (clicker class) that have been designed so that we can teach you the course content through problem solving. This means that you should bring your notebook to class every Friday and that **you must take additional detailed notes about the problems and content we cover during clicker class.** However **we do recommend that you don't use your video notes during our clicker classes – instead you should practice remembering the content.** Note that if you do not have notes from videos and clicker sessions you may not be able to adequately prepare when you study for the exams.

Remember that we (the teaching team) are here to support you in your learning, but **you must keep up with the material every week** – it is unlikely that you will be able to catch up if you fall behind.

Text: **You are not required to purchase a textbook.** There is an e-book as part of your Sapling subscription (see below) but you should feel free to use **any** General Chemistry textbook. We will not be working through a textbook in a chapter-by-chapter fashion; rather we will cover 18 chemistry topics and use the textbook as a reference. If you feel the need to buy a recommended textbook *Chemistry, 8th Ed., Zumdahl and Zumdahl* is a good choice. A used textbook from Amazon or eBay is perfectly fine!

For the purposes of this course you may choose to buy the *General Chemistry 1: Let's Practice Workbook* from the Hunter College Online Bookstore. This workbook contains all "Let's practice" problems from the topic videos: <https://hunter.textbookx.com/institutional/index.php?action=browse#books/2097725/>

Hard copies of this workbook soon will be available at Shakespeare&Co Bookstore (Lex between 68 & 69).

Email: **It is very important that you use the same email address to register both your Sapling account and your iClicker/REEF** (see below). This email will be used to upload your grades to Sapling, so if you are going to use multiple email address you will be missing points. This email address must be one that you check regularly as we may use it to communicate with you.

Web Site = Sapling: As part of this course we will be using a custom platform called Sapling. This platform has been designed specifically for our course. It will be used to host our course materials and as your online homework system. ***The Sapling platform will be ready for account registration after 5 pm on Friday August 23rd.*** You should log on to Sapling as soon as you can and register for our course so that you can become familiar with the look and feel of the web interface. ***It is very important that when we meet on Friday August 30th you are already registered on the Sapling website.***

To register for Sapling:

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.
 - a. Create your password and set all three security questions.
 - b. Start typing in your institution to select from the options that appears in the Primary Institution or School name field. Select **CUNY, Hunter College** as your school (in *US Higher Ed*)
 - c. Accept the terms of use and click "Sign Up".
 - d. 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 Hunter College. Click to expand this list and see courses arranged by subject and term.
4. Once the menus are fully expanded, you'll see links to all courses. Click on the link **CUNY, Hunter College - CHEM 102 - Fall19 - KOBKO** to select the course.
5. **The Key Code required to register for our course will be posted on Friday after 5 pm. Please do not email me about it.**
6. Review the [system requirements](#) and confirm that Flash is updated and enabled in your browser.
7. **Need Help?** The Sapling 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 our course:

<https://macmillan.force.com/macmillanlearning/s/article/Sapling-Learning-Registering-for-courses>

You can opt to buy ONE semester or TWO semester (1 year) access to the Sapling site. If you plan to take both Chem 102 and Chem 104 we suggest you buy access for TWO semesters, as we will be using Sapling again in Chem 104. ***You can sign up for Sapling and use it free of charge now and pay for it in 10 days.***

The Sapling platform will be used in lieu of CUNY Blackboard. This is where you will find ***all course documents*** including (but not limited to) the Learning Goal Analysis quizzes (LGA), Videos and Video PDF documents, iClicker PDF documents, online homework assignments, Workshop assignments, old general Chemistry exams. The copy of the syllabus will be available on Sapling in COURSE_DOCUMENTS folder. You will monitor your course progress using Sapling Gradebook. ***I will post all course announcements on the front page of Sapling.***

iClicker: As part of this course we will be using a personal response device called an iClicker. You will use the iClicker to respond to in-class questions during lecture every Friday. This will serve a dual purpose: 1) Your responses will provide me with real-time feedback about student understanding of course content and 2) Your participation will help you practice the material and grow as a chemistry student. Remember that to succeed in our course you should take detailed notes during clicker sessions.

iClickers (iClicker+ or iClicker2) can be purchased at iclicker.com or any other website that sells new or used clickers. If you already own an iClicker from previous courses it can be used again for this course. Once you have your iClicker you will need to register it using the same email address you used to register your Sapling account. Please note that there is a fee for registering a used clicker that was previously registered in a different name.

To register your iClicker:

1. Log on to <https://www.iclicker.com/remote-registration-form-for-classic>
2. Complete the registration questions. **Note:** You must register using your full first and last name and the same email address that you used to register for the Sapling site. Your email address will be used to link your iClicker responses to our online student roster. You should enter your email address in the "Student ID" field in the online registration form when you register your clicker.*

Exams: There will be 3 equally weighted in-class exams (200 points each for a total of 600 points) given during the course of the semester. There will also be a **Comprehensive Final Exam** (400 points) given during finals week. If your final exam grade is higher than your lowest in-class exam grade your final grade will count for 600 points and your lowest in-class exam grade will be dropped.

For your exams you will be required to bring a #2 pencil and a scientific calculator to class. All other materials (e.g. periodic table and/or other necessary information such as a formula sheet) will be provided for you. **Exams must be taken during the designated class period. NO MAKE-UP EXAMS will be given.** If you miss one in-class exam you will earn a grade of zero for that exam. This grade will then be dropped as your lowest in-class exam grade and your final exam grade will automatically be counted for 600 points. If you miss more than one in-class exam you will receive a grade of ZERO for the second missed exam.

Tentative Exam schedule:

- **EXAM 1: Friday, September 27th**
Think of this exam as a Chem 102 placement exam. Your score determines whether or not you have gained the knowledge required to continue in the course. If you fail this exam you should consider withdrawing from the course. If you decide to remain in the course you should meet with us to discuss options for success. You will need to make a drastic change to your study habits!
- **EXAM 2: Friday, October 25th**
This exam is more difficult than exam 1. If you failed exam 1 and you also fail this exam you should definitely withdraw from the course. The last day to withdraw from the course with the grade of "W" is Tuesday, November 5th.
- **EXAM 3: Friday, December 6th**
This is your last and most difficult in-class exam. In general student grades drop by 10% from exam 2 to exam 3 so make sure you put in enough time to prepare for this exam.
- **FINAL EXAM: tentatively scheduled for Monday, December 16th: 9:00-11:00 am**
The final is the American chemical society (ACS) test.

Course Outline and Pacing Guide: This semester we will cover the following 18 topics:

- | | |
|-------------------------------------|---|
| 1. Matter, Models, and Math | 10. Molecular Geometry |
| 2. Atoms and Orbitals | 11. Valence Bond Theory |
| 3. Basic Bonding Principles | 12. Molecular Orbital Theory |
| 4. Introduction to Covalent Bonding | 13. The Mole |
| 5. The Chemical Equation | 14. Stoichiometry Calculations |
| 6. Energy Considerations | 15. Empirical and Molecular Formula |
| 7. Periodic Trends | 16. Intra-molecular Forces |
| 8. Atomic Spectroscopy | 17. Gases |
| 9. The Electron | 18. Applications of Stoichiometry (Aqueous Solutions) |

On Sapling in the COURSE_DOCUMENTS folder you will find the Pacing Guide that includes all your assignment deadlines and exam dates. In addition, you will find there the Video Table of Contents - to help you organize your time more effectively.

Grading policy: Every component of this course earns you points towards your final grade, but to earn your points you must complete each component by its due date. Please see the Sapling website for more information on assignment due dates.

To earn full credit in this course you must accumulate 1400 points. 400 pts come from your Topic grade and 1000 pts come from your EXAM grades. Here is the tentative **Grading Scheme** for our course:

| TOPIC | LGA ¹ | Videos ¹ | Workshop | i-Clicker | Homework ² | TOPIC TOTAL ³ | In-Class Exams ⁴ | Final Exam ⁴ |
|---|------------------|---------------------|----------|-----------|-----------------------|--------------------------|-----------------------------|-------------------------|
| Topic 1 | 1 | 1 | 10 | - | 5 | 17 | Exam 1 (200 pts) | 400 pts |
| Topic 2 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 3 | 1 | 1 | - | - | 10 | 12 | | |
| Topic 4 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 5 | 1 | 1 | 0 | - | 10 | 12 | | |
| Topic 6 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 7 | 1 | 1 | 10 | - | 10 | 22 | Exam 2 (200 pts) | 400 pts |
| Topic 8 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 9 | 1 | 1 | - | - | 10 | 12 | | |
| Topic 10 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 11 | 1 | 1 | - | - | 10 | 12 | | |
| Topic 12 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 13 | 1 | 1 | 10 | - | 10 | 22 | Exam 3 (200 pts) | 400 pts |
| Topic 14 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 15 | 1 | 1 | - | - | 10 | 12 | | |
| Topic 16 | 1 | 1 | 10 | 11 | 10 | 33 | | |
| Topic 17 | 1 | 1 | 5 | 11 | 10 | 28 | | |
| Topic 18 | 1 | 1 | 5 | 11 | 10 | 28 | | |
| TOTALS | 18 | 18 | 120 | 110 | 175 | 441 | 600 | 400 |
| Total Topic Grade Required = 400 out of a total of 441 possible points | | | | | | | Total Exam Grade = 1000 | |
| Total number of points to be earned in the course is up to: 400 + 1000 = 1400 (max) | | | | | | | | |

- The points for LGA or Videos** are an all or nothing score. 1 point is earned for completion of an assignment by the deadline and 0 points for an assignment completed after the deadline.
- The points for each homework assignment** are scaled to the totals indicated (see below).
- The total score for each topic** is computed by summing the topic components. There are 441 total Topic points that you can earn if you complete every assignment on Sapling correctly and on time and if you get all the WS and iClicker points. Only the first 400 points will count toward your grade. Think of the excess 41 points as the points that you can "waste" if you miss a few assignments or a few points here and there. You cannot earn more than 400 TOPIC points. The 41 excess Topic points cannot be applied to your exam score.
- If you miss an in-class exam, the final exam will count out of 600 points instead of 400 points. There are NO make-up exams.

The total number of points you earn will be normalized to a score out of 100.00 and then assigned a letter grade according to the Hunter College guidelines (see table shown to the right). Letter grades will be determined based on a score to 2 decimal places. There will be no rounding of scores to determine letter grades.

| Letter Grade | Course Requirement |
|--------------|--------------------|
| A+ | 97.50 |
| A | 92.50 |
| A- | 90.00 |
| B+ | 87.50 |
| B | 82.50 |
| B- | 80.00 |
| C+ | 77.50 |
| C | 70.00 |
| D | 60.00 |
| F | <60 |

Required Learning Goal Analysis (LGA): Before you begin a new topic you will be required to complete a Learning Goal Analysis on the Sapling platform. This analysis asks you to read each learning goal for that topic and assess how comfortable you feel with the content presented. *There is no wrong answer to an LGA question* The goal is to help you begin accurately self-assessing your own content understanding and focus your attention on the learning goals to drive your learning. These learning goals serve as both an outline for the course and a tool to help you prepare for your exams. Every single Exam question is based on at least 1 learning goal (although some will contain multiple learning goals). There is also an LGA document in the COURSE_DOCUMENTS folder on Sapling – *use the LGA file to review the learning goals when you study for our exams.*

Required Recitation Workshops: In addition to completing the videos and LGA assignments, you are responsible for submitting a weekly recitation assignment called a workshop. Workshops are to be completed in groups of 3 (or 4) students and must be submitted to your recitation instructor during your assigned recitation period (see Workshop Grading Policy in the COURSE_DOCUMENTS folder on Sapling). There are 13 required (graded) workshop assignments this semester. Each workshop is worth **5 or 10 pts**. *You must attend the recitation section that you registered for every week in order to earn these points.* If you miss a workshop you do not earn the points for that workshop. However, you are allowed to make-up ONE recitation per semester. *To schedule the make-up you need to email your recitation instructor and the instructor of the recitation that you plan to attend.* Also remember that there are 41 “excess” points built into your Sapling topic grade - so if you miss a workshop, you waste 5 or 10 of these “excess” points.

Required iClicker sessions: There will be 10 required 2 hour iClicker sessions, each worth a total of 11 points. You earn 1 point for attending a session and then 1 point for every question that you answer correctly during the session. Some sessions will have only 10 questions and some will have more than 10 questions. The maximum number of points you can earn per session is 11 so only 10 correct responses will be counted for each session *If your iClicker malfunctions or when you forget it at home you will not earn the points for that session.* *Please do NOT ask for points if you fail to have a functioning iClicker.* Once again, remember that there are 41 “excess” points built into your Sapling topic grade so if you do not earn the points for a clicker session, you waste 11 of these excess points.

Required Homework: You will access your homework assignments on Sapling. *To get points you need to complete the homework assignments before the deadline.* Assignments completed after the deadline will not be graded. *Please do not ask me to reopen an assignment just for you after the deadline is passed – our Sapling platform does not allow doing this.*

Please note that

- (1) The homework points for a Topic come from both the Sapling Skill practice assignments and the Sapling Synthesis assignments. The total points for a Topic’s homework set are **scaled** to 10 pts (see the Grading Scheme table above). You will see on Sapling your true homework grade after the last deadline for the set.
- (2) The points that you accumulate by completing the Sapling extra credit assignments will only be applied to cover points lost in the Sapling Skill Practice and Synthesis parts of the homework **for the current topic**. *These homework extra-credit points cannot be used to cover points lost in other topics, in other assignments or in exams.*

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Academic Dishonesty: Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The college is committed to enforcing the CUNY Policy on Academic Integrity and will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures, see:

<http://www.hunter.cuny.edu/studentaffairs/student-conduct/academic-integrity/cuny-policy-on-academic-integrity>

Students who are caught cheating on an exam in this course will automatically obtain a grade of ZERO for that exam and will be reported for Academic Dishonesty. This grade of ZERO cannot be used as your lowest exam score to be dropped in the course.

Students who are caught cheating during a workshop or a clicker session will automatically obtain a grade of ZERO for that workshop or clicker set and will be reported for Academic Dishonesty.

ADA Statement: In compliance with the ADA and with Section 504 of the Rehabilitation Act, Hunter College is committed to ensuring educational access and accommodations for all its registered students. Hunter College's students with disabilities and medical conditions are encouraged to register with the Office of AccessABILITY for assistance and accommodation. For information and appointment contact the Office of AccessABILITY (located in room E1214) or call 212-772-4857 or VRS 646-755-3129.

Hunter College Policy on Sexual Misconduct: In compliance with the CUNY Policy on Sexual Misconduct, Hunter College reaffirms the prohibition of any sexual misconduct, which includes sexual violence, sexual harassment, and gender-based harassment retaliation against students, employees, or visitors, as well as certain intimate relationships. Students who have experienced any form of sexual violence on or off campus (including CUNY-sponsored trips and events) are entitled to the rights outlined in the Bill of Rights for Hunter College.

1. Sexual Violence: Students are strongly encouraged to immediately report the incident by calling 911, contacting NYPD Special Victims Division Hotline (646-610-7272) or their local police precinct, or contacting the College's Public Safety Office (212-772-4444).
2. All Other Forms of Sexual Misconduct: Students are also encouraged to contact the College's Title IX Campus Coordinator, Dean John Rose (jtrose@hunter.cuny.edu or 212-650-3262) or Colleen Barry (colleen.barry@hunter.cuny.edu or 212-772-4534) and seek complimentary services through the Counseling and Wellness Services Office, Hunter East 1123. CUNY Policy on Sexual Misconduct Link: <http://www.cuny.edu/about/administration/offices/la/Policy-on-Sexual-Misconduct-12-1-14-with-links.pdf>

Academic Calendar for Fall 2019

| | | | |
|-----------|-------|-------------------|---|
| August | 26 | Monday | Last day to drop for 100% tuition refund |
| | 27 | Tuesday | Start of Fall Term Classes begin |
| September | 02 | Monday | College Closed Last day to add a course / Last day to drop for 75% tuition refund Financial Aid Certification Enrollment Status Date |
| | 03 | Tuesday | Verification of Enrollment rosters available to faculty Grade of WD is assigned to students who officially drop a course |
| | 05 | Thursday | Classes follow Monday schedule |
| | 09 | Monday | Last day to drop for 50% tuition refund |
| | 16 | Monday | Last day to drop for 25% tuition refund Last day to Change or Declare a Major/Minor to be effective Fall 2019 Census date – Form-A cutoff Verification of Enrollment Rosters Due from faculty |
| | 17 | Tuesday | WN Grades assigned Grade of W is assigned to students who officially withdraw from a course |
| | 26 | Thursday | WA Grades Assigned – Immunization non-compliance |
| | 30 | Monday | No classes scheduled |
| October | 01 | Tuesday | No classes scheduled |
| | 08-09 | Tuesday-Wednesday | No classes scheduled |
| | 14 | Monday | College Closed |
| | 16 | Wednesday | Classes follow Monday schedule |
| November | 04 | Monday | R2T4 60% Date for the term |
| | 05 | Tuesday | Last day to withdraw from a course with a grade of W |
| | 28-30 | Thursday-Saturday | College Closed |
| December | 01 | Sunday | College Closed |
| | 13 | Friday | Reading Day/Final Examination |
| | 14-20 | Saturday- Friday | Final Examinations |
| | 20 | Friday | End of Fall Term |
| | 24-25 | Tuesday-Wednesday | College Closed |
| | 27 | Friday | Final Grade Submission Deadline* |