



Spring 2019: CHE 114
Essentials of General Chemistry
Section A01: Online Instruction



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Online Office Hours via Zoom: Monday, 2-3 pm or by appointment
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Welcome!

Chemistry is all around us: in the food we eat, in the clothes we wear, in the technology you are using to read this right now, and in you yourself! In this course we will introduce the basic principles of chemistry starting from individual atoms and molecules through chemical reactions and applications. We aim to connect observable features in our everyday lives to the chemical foundations behind them.

The course will be taught in an online model with the primary delivery of course content through a series of custom-made course videos supported by a variety of online assignments and assessed by in-person exams. This section will have a small class size and rely on digital communication to build a community of learners within the course platforms. The course is asynchronous, meaning you do not have to log in at any specific times, so it offers you more flexibility than the in person course, however it requires an equal time commitment as a traditional face-to-face course. Please read through this document thoroughly, familiarize yourself with both course websites, and always feel free to reach out with questions!

Course Description

CHE 114: Essentials of General Chemistry Lecture: 3 credits. Essentials of chemistry and their applications to inorganic chemistry. **PREREQ:** MAT 104 or satisfaction of requirements for placement into precalculus (MAT 172).

- Goal of the course:** This is a one-semester general chemistry course to prepare you for a health science-based career. Essentials of General Chemistry 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!

How This Course Works: This section of *Essentials of General Chemistry* is run as an online course with in-person exams. In this model you will watch videos and complete online assignments from home, then come in to Lehman to take your exams.

Time Requirements: You should plan to spend **at least 10-15 hours per week** watching videos, doing your online homework, engaging with your classmates and learning the material. It is your responsibility to keep up with the material – it is unlikely that you will be able to catch up if you fall behind.

Technology Requirements: You need semester-long access to a computer with a reliable internet connection. You will need a webcam and microphone to engage fully in course discussions and activities.

Since this is an online course you have to make sure to regularly check your CUNY email for course updates and communication. If you do not check your email regularly it is possible that you will miss important information - which is likely to have a negative impact your grade. You will also need a scientific calculator to help with assignments and which you are required to bring for the exams.

Instructional Technology: As part of this course we will be using two course platforms: Blackboard and Sapling Learning. You should log on to both as soon as you can so that you can familiarize yourself with the look and feel of the web interfaces.

Blackboard: You should automatically gain access to the Blackboard site if you have registered for the course. All course announcements, course documents (syllabus, pacing guide, learning goals, grading scheme, video table of contents), and old CHE 114 practice exams will be posted on Blackboard. You will also engage in discussion boards and complete Guided Problem Solving assignments there.

For help with Portal/Blackboard Username or Password problems: Lehman HELP DESK in the IT Center in Carman Hall (ext. 1111). Off campus: (718) 960-1111 <http://www.lehman.edu/itr/about-it-center.php>

Sapling: You will need to actively create an account on Sapling and purchase an access code in order to register for our specific course site. The cost for ONE semester of access is \$47.00, and the cost for TWO semesters of access is \$60.00. The follow up to this course in most programs, CHE 120 Essentials of Organic Chemistry, also uses this site so if you plan on taking that as well the two semester package may be advantageous. It is imperative that when the course starts on Friday, January 25th, you are already registered on the Sapling website.

To register for Sapling:

1. Log on to <https://www.saplinglearning.com/ibiscms/login/>
2. Click on the blue "create an account" tab and follow the online instructions to create a user profile (choose a username and password). Please make sure that you use the same email address to claim your Sapling account and access Blackboard.
3. Select **City University of New York, Lehman College** as your school
4. Select **City University of New York (CUNY), Lehman College - Online Section - Spring19 - DERI** as your course.
5. Follow the online instructions to purchase an Access Code.

The Sapling website we will use has been designed specifically for our course. This is where you will complete the Learning Goal Analysis (LGA) assignments, watch the course videos, and complete online Sapling homework assignments.



Course Components

The assignments described below are all included in a typical course unit. We recommend you complete them in the order they are described below.

Learning Goal Analysis (LGA): Before you begin a new unit, you will be required to complete a Learning Goal Analysis on Sapling. 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. Use the LGA to study for your exams. Every single Exam question is based on at least one learning goal (although some will contain multiple learning goals). There is also an LGA document in the Course Documents folder on Blackboard that can be used to review the learning goals.

Course Videos & Video Certification: This course is built around a video backbone that provides the initial exposure to the course content. Each video uses a combination of narration and visuals to explain part of a topic and ends with a Let's Practice problem demonstrating how the content is meant to be applied. You should take notes during the videos and work through these problems as you watch. You must watch the videos for a given unit on Sapling prior to starting the assignments and complete a Video Certification assignment on Sapling to confirm that you have watched them.

Guided Problem Solving: Every unit will have a corresponding GPS assignment on Blackboard using VoiceThread. These are a series of 8 questions, half presented with instructor-provided fully explained solution videos and half requiring students to post their own solutions and explanations. These questions are meant to highlight important concepts for each unit.

Homework Assignments: For this course we will be using an online homework system built into Sapling. All the assignments and due dates are found within the course site. There are two kinds of online homework assignments: Skills Practice and Synthesis. There is a 3 question Skills Practice assignment linked to each unit video. Then each unit has a summative Synthesis assignment of varying lengths.

Discussion Boards: Every unit on Blackboard contains its own Discussion Board forum. These are meant for students to post any questions about that unit's content whether it be a general question or an issue with a specific homework problem. Students are encouraged to try to answer each other's questions and the discussion boards will be monitored by the instructor as well.

Optional Text: For the purpose of this class you will not be required to buy a textbook. You can however, use ANY General Chemistry textbook. The Sapling platform includes a digital e-book. We will not be working through a textbook in a chapter-by-chapter fashion; rather we will cover 17 chemistry topics and you can use a textbook as a reference. *If you feel the need to buy a print textbook, Chemistry, 8th Ed., Zumdahl and Zumdahl is a wonderful choice.*



Assessment/Grading

Grading Policy: To earn full credit in this course you must accumulate 750 points. 250 points come from your UNIT grade and 500 points come from your EXAM grades. Please see the Grading Scheme (below & on Blackboard) for details. 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 (see Pacing Guide on next page).

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 table shown to the right. Letter grades will be determined based on a score to 2 decimal places. There will be no further rounding of scores to determine letter grades.

Exams: There will be three equally weighted in-person exams (100 points each for a total of 300 points) given during the course of the semester. There will also be a Comprehensive Final Exam (200 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 300 points and your lowest in-class exam grade will be dropped.

For your exams you will be required to bring a pencil and a calculator to class. All other materials (e.g. periodic table and other necessary information) will be provided for you. Exams must be taken during the designated time. 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 300 points. If you miss more than one in-class exam you will receive a grade of ZERO for the second missed exam.

| Letter Grade | Score Earned |
|--------------|--------------|
| 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 |

| UNIT | LGA ¹ | Videos | Guided Problem Solving / Review | Discussion Boards | Homework ² | Unit Total ³ | In-Class Exams ⁴ | Final Exam ⁴ |
|---|------------------|-----------|---------------------------------|-------------------|-----------------------|-------------------------|-----------------------------|-------------------------|
| Intro | - | - | - | 3 | - | 3 | Exam 1 (100 pts) | 200 pts |
| Unit 1 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 2 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 3 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 4 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 5 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 6 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| E1 Review | - | - | 6 | 2 | - | 8 | | |
| Unit 7 | 1 | 1 | 6 | 2 | 5 | 15 | Exam 2 (100 pts) | |
| Unit 8 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 9 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 10 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 11 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| E2 Review | - | - | 6 | 2 | - | 8 | | |
| Unit 12 | 1 | 1 | 6 | 2 | 5 | 15 | Exam 3 (100 pts) | |
| Unit 13 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 14 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 15 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| Unit 16 | 1 | 1 | 6 | 2 | 5 | 15 | | |
| E3 Review | - | - | 6 | 2 | - | 8 | | |
| Final Review | - | - | 8 | - | - | 8 | | |
| TOTALS | 16 | 16 | 120 | 43 | 80 | 275 | 300 | 200 |
| Total Unit Grade Required = 250 out of a total of 275 possible points | | | | | | | Total Exam Grade = 500 | |
| Total number of points to be earned in the course: 250 + 500 = 750 | | | | | | | | |

Detailed Course Outline: Within Blackboard, the course is broken down into 15 modules corresponding to the 15 weeks of class. Each module details the units covered that week and the required assignments. All Sapling assignments have specific due dates listed. Please see the Course Pacing Guide (below and on Blackboard) for a detailed course schedule that includes all your assignments and exam dates. In addition, we have created a Video Table of Contents (also on Blackboard) with a video breakdown of each unit including the required viewing time to help you organize your time effectively.

| Module | Dates | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY | |
|--------|-----------|-----------------------------------|--------------|-----------|----------|--------|----------|--------|--|
| 1 | 1/28-2/3 | Intro & Unit 1 | | | | | | | |
| 2 | 2/4-2/10 | Unit 2 & Unit 3 | | | | | | | |
| 3 | 2/11-2/17 | Unit 4 & Unit 5 | | | | | | | |
| 4 | 2/18-2/24 | Unit 6 & Exam 1 Review | | | | | | | |
| 5 | 2/25-3/3 | Exam 1 | Unit 7 | | | | | | |
| 6 | 3/4-3/10 | Unit 8 | | | | | | | |
| 7 | 3/11-3/17 | Unit 9 & Unit 10 | | | | | | | |
| 8 | 3/18-3/24 | Unit 10 & Unit 11 | | | | | | | |
| 9 | 3/25-3/31 | Exam 2 Review | | | | | | | |
| 10 | 4/1-4/7 | Exam 2 | Unit 12 | | | | | | |
| 11 | 4/8-4/14 | Unit 13 & Unit 14 | | | | | | | |
| 12 | 4/15-4/21 | Unit 15 & Unit 16 | | | | | | | |
| - | 4/22-4/28 | Spring Break | | | | | | | |
| 13 | 4/29-5/5 | Exam 3 Review | | | | | | | |
| 14 | 5/6-5/12 | Exam 3 | Final Review | | | | | | |
| 15 | 5/13-5/19 | Final Exam Date To Be Determined! | | | | | | | |
| Finals | 5/16-5/22 | Final Exam Date To Be Determined! | | | | | | | |

Exam Schedule:

- **EXAM 1: Monday, February 25th**
Think of this exam as a CHE 114 placement exam. Your score on this exam 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 make an appointment with me to discuss your strategy for success. You will need to make a drastic change to your study habits!*
- **EXAM 2: Monday, April 1st**
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 is *Tuesday, April 9th*. *Grades from Exam 2 will be posted as soon as possible to allow for withdrawal decisions.*
- **EXAM 3: Monday, May 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: To Be Determined**
The final exam is cumulative and worth twice as much as any of the in-class exams. It CANNOT be dropped.



Course Policies

Attendance Policy: The student handbook notes that “Students are expected to attend all class meetings as scheduled, and are responsible for all class work missed as a result of late registration or absence. Excessive absences in any course may result in a lower final grade.” For this online course we take attendance to mean completion of course assignments within deadlines and participation in group discussion boards as well as actual presence at in-person exams.

Academic Dishonesty: While honest scholarship is time-consuming and often requires hard work, it is also the primary process by which students learn to think for themselves. Faculty members must teach respect for methods of inquiry within the various disciplines and make assignments that will encourage honest scholarship; students in turn must uphold a standard of honesty within the College, thereby affirming the value and integrity of their Lehman degree.

Academic dishonesty (e.g., cheating, plagiarism, obtaining unfair advantage and falsification of records and official documents) is prohibited in The City University of New York. Penalties for academic dishonesty include academic sanctions, such as failing or otherwise reduced grades, and/or disciplinary sanctions, including suspension or expulsion. All violations are reported to the Department and college’s Academic Integrity Officer.

Academic dishonesty is a serious violation of the accepted values of the College. 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.

For detailed information on definitions and examples of Academic Dishonesty, including Cheating, Plagiarism, Obtaining Unfair Advantage and Falsification of Records and Documents, please refer to the student handbook or visit: <http://lehman.smartcatalogiq.com/en/2017-2019/Undergraduate-Bulletin/Academic-Services-and-Policies/Academic-Integrity>



Student Resources

Accommodating Disabilities: Lehman College is committed to providing access to all programs and curricula to all students. Students with disabilities who may require any special considerations should register with the Office of Student Disability Services in order to submit official paperwork to instructor.

For more information, please contact the Office of Student Disability Services, Shuster Hall, Room 238, 718-960-8441. For detailed information on services and resources visit:

<http://www.lehman.edu/student-disability-services/> , or email: disability.services@lehman.cuny.edu.

Please do not hesitate to contact me or the Office of Disability Services if you think you could benefit from an accommodation. You should use all available resources to give yourself the best chance for success.

The Science Learning Center (SLC): Lehman College's Instructional Support Services Program (ISSP) is home of the Academic Center for Excellence (ACE) and Science Learning Center (SLC). Both offer students an array of activities and services designed to support classroom learning.

The Science Learning Center (SLC) is the tutoring center on campus, located in Gillet Hall, room 133. The SLC provides drop-in tutoring and workshop sessions for natural and computer science courses. To obtain more information about the SLC, please visit their website at <http://www.lehman.edu/issp>, or please call the SLC at 718-960-7707. Regular tutoring hours for fall & spring semesters are: M-Th 10 a.m.-7 p.m., and Sat. 10 a.m.-2 p.m.

Student Handbook: Students are strongly encouraged to download and become familiar with the Student Handbook: <http://www.lehman.edu/campus-life/support-services.php>

