

## Chemistry 150—Preparatory Chemistry, Fall 2020 (20741, 26294, 24171)

**Instructor:** Omid Sadeghi, Ph.D.

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**Instructor Website:** My instructor website can be found here: [Sadeghihosseinabadi, Omid](#)

**Office Hours:** Wednesdays 2:00 – 3:00 pm (via Zoom)

**Course Format:** Class will be synchronous and asynchronous. We will meet one day each week for a live Zoom session that will be used to answer questions and allow you to work in groups. The lecture will be asynchronous, meaning you will watch lecture videos during the week on your own time.

**Course Description:** Introduction to chemistry for science, engineering and the professional health occupations. Designed to meet the prerequisite for [CH 221](#), this fast-moving curriculum covers the basic tools offered in a typical one-year high school chemistry course. A good selection for students who need a refresher in chemistry or have little or no background in chemistry and need to meet the prerequisite for [CH 221](#). Topics emphasized include chemical calculations and problem-solving techniques encountered in both inorganic and organic chemistry. There is no laboratory with [CH 150](#). Chemistry 150 *does not* fulfill the general education science course requirement.

### Required Materials:

[OpenStax Chemistry 2e Textbook](#), Digital ISBN 1947172093

Knewton Alta Online Homework Access Code

Non-graphing/programmable Scientific Calculator

**Calculator Policy:** Students will be required to use a non-graphing/programmable scientific calculator for quizzes and/or exams. Department approved calculators are: TI 30xa, TI 30X IIs, Casio fx-260, or HP 10s. If a student does not wish to purchase one of these calculators the department will provide either a Casio fx-260 or HP 10s for use on exams and/or quizzes.

**Corequisite:** Math 95, Intermediate Algebra

### Student Learning Outcomes:

1. Use mathematical reasoning with dimensional analysis while applying rules of significant figures.
2. Use the Periodic Table to recognize and explain; (a) the differences between, (b) the formation of, and (c) the naming of covalent and ionic compounds.
3. Explain the relationships and perform calculations using moles, individual particles, and mass.
4. Balance chemical reactions and perform stoichiometric calculations in problem solving.
5. Perform calculations using a variety of concentrations such as mass percent and molarity in connection with solution stoichiometry.

**Student Help Desk:** The Student Help Desk assists students with most computer software-related issues and other technology problems or questions, from login problems related to LBCC's online systems to questions about course-related instructional software. The Student Help Desk is now remote! Contact info can be found [here](#)

**Science Help Desk:** If you need help in any physics or chemistry course, you should "drop by" the Physical Science Desk, now offered online! The Help Desk is staffed approximately 20 hours per week. Please visit the Science Help Desk webpage for details and hours.

<https://www.linnbenton.edu/student-services/library-tutoring-testing/learning-center/science-support.php>

**Textbook:** Good news, your textbook for this class is available for free online! If you prefer, you can also get a print version at a very low cost. Your book is available in web view and PDF for free. You can also choose to purchase on iBooks or get a print version via the campus bookstore or from OpenStax on Amazon.com. You can use whichever formats you want. Web view is recommended -- the responsive design works seamlessly on any device. If you buy on Amazon, make sure you use the link on your book page on openstax.org so you get the official OpenStax print version. (Simple printouts sold by third parties on Amazon are not verifiable and not as high-quality.) Chemistry from OpenStax, Print ISBN 194717262X, Digital ISBN 1947172611,

<https://openstax.org/details/books/chemistry-2e>

**Homework Problem Sets:** Online homework will be assigned for each chapter. Homework will be completed using the Knewton Alta platform through the course Moodle site. Refer to the schedule for homework due dates. Homework is due at 11:59 pm on the due date. **No late homework will be accepted.**

**Instructions to Sign Up for Knewton Alta online homework:**

1. Log-on to Moodle and navigate to the course site.
2. Click on any homework assignment activity (green puzzle icons) to launch Knewton.
3. Click Purchase and then choose One-Time Purchase or Redeem Access Code. The access codes are also available at the bookstore. Students pay \$44 for 2 years of access. There is also an option to get courtesy access for 14-days.

If you have issues with Knewton, you can use the feedback button, the online chat, or email [support@knewton.com](mailto:support@knewton.com).

**Worksheets:** Students will be given worksheets during the Zoom sessions. You will be assigned to different groups and will work on the worksheets collaboratively as a group. Talking about the problems with other students will help all of you understand the material better. Please note that students must have some accountability for their individual learning for groups to work effectively. The instructor will monitor the student's performance and make sure all the group members are actively participating in the discussions. Students must complete the worksheet at the end of the Zoom section. The worksheet problems are good

practice for exams and assist with keeping students up to date with material. You will upload your worksheet to Moodle by the end of the day. No late or make-up worksheets will be given.

**Exams:** All exams this term will be taken online in the Moodle course site. There are 4 exams (please see Course Schedule for details) and there is no final exam. Students must complete the exam within the given time window.

**Grading:**

<b>Assignments</b>	<b>Percentage</b>
Knewton Homework	15%
Worksheets and attendance	25%
Exams 4 @ 15% each	60%
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Total	100%

**Course Grade:**

<b>Percentage</b>	<b>Letter Grade</b>
90-100%	A
80-89%	B
70-79%	C
60-69%	D
0-59%	F

An incomplete grade (I) may be given at the discretion of the instructor. However, a student must have a passing grade ( $\geq 70\%$ ) at the time an incomplete is assigned.

**Drop/Withdraw Policy:** If a student wishes to drop or withdraw from the class, they must use WebRunner. If a student formally drops the class by Monday of the second week of the term, that student will receive a full refund of tuition. If a withdrawal is filed after the Monday of the second week of instruction through the seventh week, a 'W' will show up on the

student's transcript. No withdrawals are allowed after the end of the seventh week. An instructor may not assign a "W" grade.

Students receiving financial aid and/or veteran's benefits should speak with the associates at the appropriate office to determine what effects on eligibility dropping a course will have. Don't jeopardize your eligibility! The Financial Aid Office can be reached at (541) 917-4850 or by visiting the Financial Aid Office remotely via Zoom.

If a student stops attending the course without formally withdrawing, that student will continue to accumulate grades (zeroes for all assignments not turned in) and will receive the grade assigned by the instructor based on the cumulative score for all assignments. Students will be held accountable for all charges on their accounts if a withdrawal is not filed.

### **How To Be Successful In This Class:**

- Attend all weekly Zoom meetings.
- Be prepared for meetings by watching the videos and reading/working through the textbook chapters to be covered in class (see Course Schedule) before that meeting. Make sure you check the Weekly To-Do List on Moodle.
- Review the syllabus and learn policies and procedures for this class.
- Attempt all assignments. If you struggle with an assignment, email your instructor, attend a study session, visit the Science Help Desk, or sign up for tutoring.
- When studying for exams, try to work through problems on your own before looking at the solutions
- Check your LBCC email regularly, and make sure that Moodle announcements are sent to your email.
- Understand your rights and responsibilities as a student and as a class member.
- Learn how to ask clarifying questions and how to be a coach for your classmates.
- When confused, challenged, frustrated or having an "aha" moment, contact the instructor via email or during a study session.
- You will upload worksheets and exams to Moodle. Different formats will be permitted, but it may be easiest for you to use the Moodle app or a scanning app such as Google Drive or Adobe Scan. These apps (Google Drive and Adobe Scan) allow you to take a picture of your document and save them as one PDF file. You can then upload your file to Moodle.
- Follow proper Zoom etiquette. We may not be face-to-face, but you should treat the experience as if you are face-to-face with myself and your fellow students. The following links may be helpful regarding Zoom etiquette and how to use Zoom.

<https://www.psychologytoday.com/us/blog/do-the-right-thing/202003/top-10-tips-good-zoom-hygiene-and-etiquette-in-education>

<https://atguides.humboldt.edu/m/zoom/l/752185-how-do-students-use-zoom>

<https://zoom.us/docs/doc/Student%20Tips%20for%20Participating%20in%20Online%20Learning.pdf>

### **Uploading Documents:**

- Moodle App: Please see the “How to Submit an Assignment Using the Moodle App” under the General section of the Moodle course shell.
- Google Drive (Android only): To use the Google Scan option of Google Drive, on your android device, open the Google Drive app, click the + at the bottom right of the screen to Add an item and tap Scan (it might have a camera icon). Use your camera to take a picture. Click Save, add a document title, and indicate what folder in Google Drive you want it saved to. Click Save and the app will convert it to a PDF file.
- Adobe Scan (Android and iPhone): On your mobile device, download the Adobe Scan app. Open the app and create an account. When the app is open it will search for the document and automatically take a picture. You can then adjust the borders of the document. Then click Continue. Repeat the process for each page of your work. The app will keep it as one document. Then, when all pages have been captured, in the bottom right corner will be the document. Tap on the picture, you can edit the document title, and then tap Save PDF. The Adobe Scan app gives you the option of copying to Google Drive or sharing the document.
- If you have trouble uploading the PDF file from your phone to Moodle, try emailing it to yourself and use your desktop/laptop to upload the file.
- Please make sure you are able to upload documents to Moodle before the first assessment is due.

**Course Evaluations:** Student feedback is important to improve this course and to help the instructor know how to adjust teaching methods. Student feedback is taken seriously and does impact future versions of the course. The Student Evaluations of Teaching (SET's) are anonymous. The process takes approximately 10 minutes and it is highly encouraged to take this opportunity to provide constructive feedback on the class. Thank you in advance for your input!

**Center for Accessibility Resources:** You should meet with your instructor during the first week of class if:

1. You have a documented disability and need accommodations.
2. Your instructor needs to know medical information about you.
3. You need special arrangements in the event of an emergency.

If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources Online Services web page every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR website at <http://www.linnbenton.edu/cfar> for steps on how to apply for services or call 541-917-4789.

**Academic Integrity:** “An instructor has the right to issue a grade of F for the course in which the instructor has reason to believe the student has cheated. A student has the right to

appeal such action in accordance with the Students' Rights, Responsibilities and Conduct Policy." The preceding statement is Administrative Rule No. 7030-01. Please see the College policy on Students' Rights Responsibilities and Conduct:

<https://www.linnbenton.edu/about-lbcc/administration/policies/board-policies-and-administrative-rules/7000-series-student-services/ar-7030-01.php>

**Students Rights, Responsibilities, and Conduct Policy:** LBCC students have rights: the right to free speech, the right to assemble, the right of a free press, etc. LBCC students also have responsibilities to their community: the responsibility to participate and engage in class, the responsibility to advocate for their needs (ask for help), the responsibility to support a respectful teaching and learning environment, the responsibility to treat all persons with respect, the responsibility to be truthful and honest in all work and communications, and the responsibility to follow staff directions, local, state, and federal laws. Rights and responsibilities balance together to create the best learning environment. For example, while you have free speech in the café or courtyard, in class the instructor decides whose turn it is to talk and what the topics for conversation will be. Students are free to believe what they believe, but instructors may require students to learn and recite concepts, principles, or theories for a class even if the student does not believe those concepts. You play a role in creating a positive community at LBCC. Please review your rights and responsibilities at this link:

<https://www.linnbenton.edu/about-lbcc/administration/policies/student-rights-responsibilities-and-conduct.php>

**LBCC Comprehensive Statement of Nondiscrimination:** LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, gender, gender identity, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws. For further information see [Board Policy 1015](#).

**Course Schedule:** The schedule below includes a tentative list of textbook sections to be covered, along with the homework due dates and dates of exams.

<b>Week No.</b> dates	<b>Weekly Zoom Session</b>	<b>Lecture Material for the Week</b>	<b>Assessments</b>
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<b>1</b> 9/28-10/2	Syllabus and Intro	1.1-1.5	
<b>2</b> 10/5-10/9	CH 1 Worksheet	1.5-1.6 & 2.3	<b>CH. 1 Knewton HW</b> Due Sunday (10/11)
<b>3</b> 10/12-10/16	Review	2.3-2.6	<b>Exam-1 (CH-1)</b> Available 10/16-10/18
<b>4</b> 10/19-10/23	CH 2 Worksheet	2.7 & 7.3	<b>CH. 2 Knewton HW</b> Due Sunday (10/25)
<b>5</b> 10/26-10/30	Lewis Structure Worksheet	3.1-3.2	<b>Exam-2 (CH-2 &amp; Lewis Structures)</b> Available 10/30-11/1
<b>6</b> 11/2-11/6	Review	3.2-3.3	
<b>7</b> 11/9-11/13	CH 3 Worksheet	3.3-3.4	<b>CH. 3 Knewton HW</b> Due Sunday (11/15)
<b>8</b> 11/16-11/20	Review	4.1-4.2	<b>Exam-3 (CH-3)</b> Available 11/20-11/22
<b>9</b> 11/23-11/27	Review	4.2-4.3	
<b>10</b> 11/30-12/4	CH 4 Worksheet	4.3-4.5	<b>CH. 4 Knewton HW</b> Due Sunday (12/6)
<b>11</b> 12/7-12/11			<b>Exam-4 (CH-4)</b> Available 12/7-12/9