

CH 222 General Chemistry 2 (5 credits) Winter 2021

Chemistry 222 Class Meetings (via Zoom)

CRN	Live Class Meetings	Instructor
31783	Mondays 9:30 am - 10:50 am	David Rogow
31780	Mondays 12:00 am -1:20 pm	rogowd@linnbenton.edu

- Each CRN will meet Mondays for class as listed above – students are expected to attend the CRN in which they are enrolled. We will discuss weekly information, work through targeted problems, and practice problem solving skills.
- Videos of chapter material will be posted on Moodle. It is expected that students will watch these videos and take notes as they would in a face-to-face class. Other resources will be shared on Moodle.

Chemistry 222 Laboratory – All lab activities are remote/online (asynchronous)

CRN	Lab Day/Time	Instructor
33865	<u>Asynchronous:</u>	Nandini Das
33866	All lab activities will be	dasn@linnbenton.edu
33867	completed online weekly	
33868		

- The laboratory instructor will post the laboratory information on the lab Moodle page. See additional lab information in the section below.

Office Hours:

Dr. Rogow's Office Hours (via Zoom)
Wednesdays 10:00 am-12:00 pm

- I am available for weekly scheduled remote office hours (Zoom links on Moodle).
- I will be available to help students with any concepts, problems, or other class material.
- Your laboratory instructor will also provide remote (Zoom) office hours each week.



Check your Linn-Benton email daily. I check email often but please allow reasonable times for responses, especially during late evenings and weekends. Please use your CRN in appropriate subject lines, and always use your LBCC email address.



All lecture and lab items will be posted and submitted via Moodle. Moodle is our online Learning Management Software (LMS) platform and you can access it [here](#), through My LBCC. Lecture slides, lecture Videos, online homework, labs, exams, and quizzes will be available on the course Moodle site.

Prerequisites: MTH 095 and one of the following: a passing score on the chemistry entrance exam; CH 150 with a grade of “C” or better; CH 121 with a grade of “C” or better; or CH 112 with a grade of “C” or better. **Corequisite:** CH 221L, MTH 111.

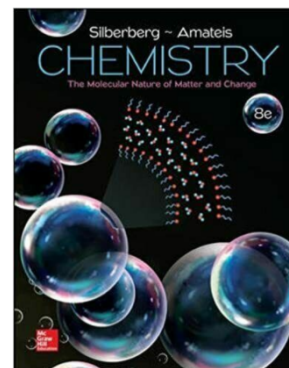
Class Participation: It is imperative to maintain a safe and welcoming learning environment with unconditional respect. Engage with the videos, HW, textbook, lab materials, & each other.

Course Description: The general chemistry sequence is for students majoring in most sciences, pharmacy, and chemical engineering. The second course of a three-term sequence for students in science, engineering and the professional health programs.

Workload Expectation: Most students earning an “A” work about 4 hours per week for every credit hour. They often read the text (and/or other resources), review lecture materials, practice problems, do homework assignments, and complete lab assignments on time.

Required Instructional Materials:

1. Chemistry: The Molecular Nature of Matter and Change, 9th or 8th Ed., by Silberberg. The textbook is a Digital Direct Access (DDA) text and is included with tuition unless students opt-out. A link to the electronic version of the textbook can be found on the course Moodle site.
2. Knewton Alta online HW access (\$44.95 per year). Links to access the online homework are found on the course Moodle site.
4. Any Scientific Calculator: Students need a calculator for practice problems, and to complete quizzes and exams.
5. Chemistry 222 laboratory kit: available in the LBCC bookstore, can be ordered for delivery.
6. Download the Zoom videoconferencing app (can be used on a phone, pad, or computer)



Student Learning Outcomes:

1. Solve scientific problems with quantitative methods regarding electromagnetic radiation, chemical bonding, phase changes, and colligative properties.
2. Apply chemical principles related to quantum mechanics, atomic and molecular orbital theory, periodic trends, intermolecular attractions of pure substances and solutions, covalent bond theory, and organic chemistry.
3. Work safely in a laboratory environment while observing and accurately recording measurements related to chemical phenomena.

Assessment Criteria and Methods of Evaluation: Overall Grade Distribution

Activity	(#)	Pts. ea.	% of grade
Homework	8	10	15
Laboratory	9	20	25
Quizzes	8	10	15
Exams	3	50	45

Grading Scale: This class is NOT graded on a curve.

A = 90% – 100%	B = 80% – 89%
C = 70% – 79%	D = 60% – 69%
F = below 59%	

An incomplete (IN) may be assigned at instructor discretion and if a student is passing at the time.



LBCC Grading Guidelines

<https://linnbenton.smartcatalogiq.com/en/current/Catalog/Academic-Information-and-Regulations>

Online Homework (15% of total):

- To succeed in chemistry, consider studying and practicing most days.
- Most practice problem homework will be via Knewton Alta, an online homework platform.
- Each individual assignment, listed within the chapter on Moodle, is due at 11:59 pm on the due date.
- All HW assignments count towards your grade. Each assignment is worth 10 points.

- No late homework will be accepted for credit, however, you can always access the homework assignments for practice.

Quizzes (15% total):

- Quizzes are designed to help students keep up with material and evaluates where you are on important concepts prior to the exam.
- There will be 8 quizzes hosted on Moodle from 8 am Thursday – 5 pm Friday. Quizzes will have a time limit of **45 minutes** to complete each quiz. Please start each quiz at least 45 minutes before 5 pm on Fridays.

Exams (45% total):

- Exams cover specified topics using multiple choice & short answers questions.
- Practice exams with answers will be provided on Moodle.
- There will be 3 exams hosted on Moodle from 8 am Thursday – 5 pm Friday of the exam week. Please dedicate **1 hour and 20 minutes (80 min.)** to complete exam within the time window.
- Quizzes and exams are open notes and open book. If cheating is suspected, it will result in a grade of 0 for that assignment (in accordance with LBCC academic integrity policy).

Laboratory (25% total):

- All laboratory activities this term are remote or virtual labs.
 - Virtual labs: Online simulations, at-home data work up, or the like will be utilized. Molecular model kits, and at-home lab supplies in the CH 222 Laboratory Kit will be used for some of the lab activities this term.
- Each week's lab documents will be posted on Moodle.
- Most weekly labs will include a pre-lab assignment with a pre-lab video on Moodle for students to access. **Students are required to watch the pre-lab videos and complete the pre-lab assignment prior to accessing the virtual data.**
- All lab reports for virtual labs will submitted to the corresponding assignment submission drop box on Moodle and are due within one week of the date they are assigned.
 - Late lab reports will be accepted up to 1 week past the due date with a flat 2-point deduction.
 - Lab reports will be accepted after 1 week late but can only earn up to 50% credit. Lab reports that are more than 2 weeks late will not be accepted for grading
- Passing CH 222 requires passing the laboratory section with a 70%.
- Not turning in a lab report results in a grade of zero for that assignment.
- The one lowest lab report score will be dropped at the end of the term.

CH 222 Winter 2021 Tentative Online/Remote Schedule

Week, dates	<u>Lecture Material</u> <u>Quiz/Exam</u>	<u>Lab Material</u> Pre-lab assignment due Tues. Post-lab assignment due Wed.	<u>Knewton HW</u> Due Wed.
1 1/4-1/8	Chapter 7 – Quantum Numbers Review 7.1-7.2, 7.3, 7.4 Chapter 8 – Electron Configuration and Periodic Properties 8.1, 8.2 <u>Quiz 1:</u> <i>Thurs, 01/7 8am – Fri, 01/8 5pm</i>	<u>Lab 1. Review of CH221 material</u>	all online homework assignments due at 11:59 pm
2 1/11-1/15	Chapter 8 cont. 8.3, 8.4 Chapter 9 – Bonding 9.1, 9.3, 9.4 <u>Quiz 2:</u> <i>Thurs, 01/14 8am – Fri, 01/15 5pm</i>	<u>Lab 2. Flame lab, e⁻ config., and Quantum Numbers</u>	CH 7 Knewton Due Wed 01/13
3 1/18-1/22	Chapter 9 – cont. 9.5, 9.2 Chapter 10 – Lewis Structures 10.1 <u>Quiz 3:</u> <i>Thurs, 01/21 8am – Fri, 01/22 5pm</i>	<u>Lab 3. Periodic Trends + BE calcs</u>	CH 8 Knewton Due Wed 01/20
4 1/25-1/29	Chapter 10 cont. 10.2, 10.3 Chapter 11 – Covalent Theory 11.1, 11.2 <u>Exam 1 (CH.'s 7, 8, 9):</u> <i>Thurs, 01/28 8am – Fri, 01/29 5pm</i>	<u>Lab 4. Lewis Structures</u>	CH 9 Knewton Due Wed 01/27
5 2/1-2/5	Chapter 11 – cont. 11.3 Chapter 15 – Organic Chem 15.1, 15.2 <u>Quiz 4:</u> <i>Thurs, 02/4 8am – Fri, 02/5 5pm</i>	<u>Lab 5. Molecular Modeling</u>	CH 10 Knewton Due Wed 02/03
6 2/8-2/12	Chapter 15 cont. 15.4 <u>Quiz 5:</u> <i>Thurs, 02/11 8am – Fri, 02/12 5pm</i>	<u>Lab 6. Organic Structures</u>	CH 11 Knewton Due Wed 02/10
7 2/15-2/19	Chapter 12 – Liquids 12.3, 12.4 <u>Quiz 6:</u> <i>Thurs, 02/18 8am – Fri, 02/19 5pm</i>	<u>Lab 7. Intermolecular Forces</u>	CH 15 Knewton Due Wed 02/17
8 2/22-2/26	Chapter 12 cont. 12.1, 12.2 <u>Exam 2 (CH.'s 10, 11, 15):</u> <i>Thurs, 02/25 8am – Fri, 02/26 5pm</i>	<u>Lab 8. Candy Chromatography</u>	
9 3/1-3/5	Chapter 13 – Solutions 13.1, 13.3-6 <u>Quiz 7:</u> <i>Thurs, 03/4 8am – Fri, 03/5 5pm</i>	<u>Lab 9. Enthalpy Vaporization</u>	CH 12 Knewton Due Wed 03/03
10 3/8-3/12	Chapter 13 cont. practice <u>Quiz 8:</u> <i>Thurs, 03/11 8am – Fri, 03/12 5pm</i>	<u>Lab 10. Freezing Point Depression</u> Lab Review Extra Credit	CH 13 Knewton Due Wed 03/10
11 3/15-3/19	Finals <i>Final (CH's 12, 13)</i> <i>Tues, 03/16 8am – Wed, 03/17 5pm</i>		

Drop Deadline: 01/11/2021

Withdrawal Deadline: 02/19/2021

Flexibility Statement: The instructor reserves the right to modify course content and/or substitute assignments and learning activities in response to institutional, weather or class situations.

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 BP-1015](#). Title II, IX, & Section 504: Scott Rolen, CC-108, 541-917-4425; Lynne Cox, T-107B, 541-917-4806, LBCC, Albany, Oregon. To report an incident: linnbenton-advocate.symplicity.com/public_report

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.

 **Student Code of Conduct/ Rights and Responsibilities:**
<https://www.linnbenton.edu/current-students/administration-information/policies/students-rights-responsibilities-and-conduct.php>

Drop/Withdraw Policy:

- If you are withdrawing from class, you must file a Schedule Change Form with Registration or use WebRunner. To receive a tuition refund, drop the class by the 2nd Monday of the term. To withdraw from the class, drop the class by the end of the 7th week of the term. The course will record as a “W” on your transcript.
- If you stop attending the course and DO NOT formally withdraw, you will accumulate zeroes for assignments not turned in and receive the grade in accordance with work completed.
- If you received financial aid or veteran’s benefits, talk with associates at the appropriate office to determine what effects on eligibility dropping a course will have. You can contact the Financial Aid Office by calling (541) 917-4850 in Takena Hall.

Center for Accessibility Resources (CfAR):

You should contact 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 to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR website at www.linnbenton.edu/cfar for steps on how to apply for services, or call 541-917- 4789.