

CH 150 Preparatory Chemistry Winter 2020 (3 Credits)

CRN: 32118 Tues, Thurs 10:00-11:20am MH-208

Instructor: Meilianty Gunawan

Email: gunawam@linnbenton.edu

Office Hours: Tues & Thurs (9:00-10:00am)

Office location: MH-211

For general class information, please check the syllabus and Moodle first. Class documents, including notes, homework, and announcements, will be posted on Moodle.

Course Description: CH150 provides an introduction for science, engineering, and professional occupations. This course is a prerequisite for the General Chemistry series (CH 221-3) and has a fast-moving curriculum emphasizing chemical calculations and problem-solving techniques encountered in both inorganic and organic chemistry. We will cover basic tools offered in a typical one-year high school chemistry course or will act as a refresher in chemistry for those with little or no background in chemistry. There is no lab with CH 150. This course does NOT fulfill the general science course requirements.

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

Required Instructional Materials:

1. [Chemistry 2e from OpenStax](#), Print ISBN 194717262X, Digital ISBN 1947172611
 - OpenStax is a FREE site for textbooks in web view or pdf.
 - Visit this link: <https://openstax.org/details/books/chemistry-2e>
 - Print versions are available at the library on reserve. Text is available to purchase on iBooks or from OpenStax on Amazon.com. On Amazon, make sure to use the link on the book page on openstax.org to get the official OpenStax print version.
2. Knewton's Alta Online Homework Access Code
 - To Sign Up for Knewton:
 - Log into Moodle and navigate to the course.
 - Click on any homework assignment to launch Knewton.

- Click **Purchase** and then choose **One-Time Purchase** or **Redeem Access Code**. The access codes are available at the bookstore. There is also an option to get courtesy access for 14-days.
 - For issues with Knewton, you can use the feedback button, the online chat, or email support@knewton.com.
3. Non-graphing/programmable Scientific Calculator
- You will need a non-graphing/programmable calculator. Department approved calculators are TI 30xa, TI 30X IIs, Casio fx-260, or HP 10s. If a student chooses not to purchase a calculator, either a Casio fx-260 or HP 10s are available for use on exams and/or quizzes.

Prerequisites: MTH95 (Intermediate Algebra) or equivalent placement test scores

Assessment Criteria and Methods of Evaluation:

<u>Activity</u>	<u>Percentage</u>
Online Homework	15
Paper Homework (5)	15
Exams (4)	50
Quizzes (5; only 4 counted)	20

Grading Scale: The course is **NOT** graded on a curve.

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

A grade of incomplete (IN) may be assigned with instructor discretion. The student has a passing grade at the time of grade assignment. Passing (P) requires a grade above 70%.

Online Homework (15%)

Online homework will be assigned for each chapter. Homework will be completed using Knewton's alta through Moodle. Refer to the schedule for homework due dates in Table 1. Homework is due at 11:59pm on the due date. No late homework will be accepted.

Paper Homework (15%)

Students will be given 5 paper homework assignments. These assignments will be handed out during the class period before they are due and also posted in Moodle. Paper homework is designed to help students review and practice class materials. Submission is by hardcopy only at the beginning of the class on the day it is due (refer to the schedule in Table 1). Late paper homework or emailed copies of the paper homework will not be accepted.

Exams (50% total): There will be 3 Mid-term Exams and 1 Final Exam (refer to the schedule of the Exams in Page Table 1). Mid-terms and Final Exam will consist of

multiple choice or True/False and short answer questions (calculations, explanations, drawing-related questions, or the like). The Mid-term Exam is 45 mins of duration while Final Exam is 1 hr 45 mins of duration.

Make-Up Exams: If you will miss an exam, you must provide documentation of College function, illness and/or family emergency must be provided to schedule a make-up exam with the instructor.

Quizzes (20%): There are **5 quizzes** (refer to the schedule in Table 1) which cover specific topics briefed by the Instructor. The top four scores will count toward your grade (so one is dropped). Each quiz is about 20 mins of duration

How to Be Successful in this Course:

- Attend every single class. Arrive on time and stay for the entire class.
- Follow along with lecture instead of looking at other material during class/homework.
- We work problems and answer questions in class. When given time to solve problems during class, do attempt to solve the problems.
- Talk with students at your table about the problems
- Complete all assignments (paper and online homework). If you struggle with an assignment, you can see me during my office hours, ask other students in the class or visit the Science Help Desk
- When studying for exams, try to work through problems on your own before looking at the solutions. Redo the lecture problems, redo the paper homework problems, and work through the sample exam problems.
- Check your LBCC email regularly, and make sure that Moodle announcements are sent to your email.

Science Help Desk: The Science Help Desk is located on the first floor of Madrone Hall in the atrium area. The opening hours of the Help Desk are posted throughout Madrone Hall and in the Help Desk area.

Class Participation: It is important to maintain a safe learning environment by showing unconditional respect for others. This is demonstrated by listening to each other and taking one and other seriously

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 or visit the Financial Aid Office in Takena Hall.

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: linnbenton-advocate.symplicity.com/public_report

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 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.

Course Content and Outcome Guide:

<http://linnbenton.smartcatalogiq.com/en/current/Catalog/Courses/CH-Chemistry/100/CH-150>

LBCC Grading Guidelines

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

Student Code of Conduct/ Rights and Responsibilities

<https://www.linnbenton.edu/current-students/administration-information/policies/students-rights-responsibilities-and-conduct.php>

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.

Table 1. CH150 Winter 2020 Schedule

Week	Lecture (T, Th)	Homework
1	T 01/07 – Introduction, Syllabus, Chapter 1 (1.1) Th 01/09 – Chapter 1 (1.2-1.5)	Paper HW 1 due Thursday
2	T 01/14 – Quiz 1 , Chapter 1 (1.5, 1.6) Th 01/16 – Chapter 1 (1.6)	
3	T 01/21 – Chapter 1 (1.6), Chapter 2 (2.1) Th 01/23 – Exam 1 , Chapter 2.2	<i>CH 1 Knewton due Wednesday</i> Paper HW 2 due Thursday
4	T 01/28 – Chapter 2 (2.3, 2.5) Th 01/30 – Quiz 2 , Chapter 2 (2.5)	
5	T 02/04 – Chapter 2 (2.6), Chapter 7.3 Th 02/06 – Chapter 2 (2.7)	
6	T 02/11 – Quiz 3 , Chapter 2 (2.7) Th 02/13 – Exam 2 Chapter 3 (3.1)	<i>CH 2 Knewton due Wednesday</i> Paper HW 3 due Thursday
7	T 02/18 –Chapter 3 (3.2) Th 02/20 – Chapter 3 (3.)	
8	T 02/25 – Quiz 4 , Chapter 3 (3.3) Th 02/27 –Chapter 3 (3.4)	
9	T 03/03 – Exam 3 , Chapter 4 (4.1-4.3) Th 03/05 – Chapter 4 (4.1-4.3)	<i>CH 3 Knewton Due Monday</i> Paper HW 4 due Thursday
10	T 03/10 – Quiz 5 , Chapter 4 (4.3-4.5) Th 03/12 – Chapter 4 (cont.)	Paper HW 5 due Thursday
11	Final Exam March 17 th , 9:30-11:20am Venue: MH-208	<i>CH 4 Knewton Due Monday</i>

Drop Date: 01/13

Withdraw Date: 02/22