

CH 221 CRN 24184

Zoom session Link: <https://linnbenton.zoom.us/j/94110008884>

Instructor  
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Office Hours

Friday: 12-1 PM

Zoom Link:

<https://linnbenton.zoom.us/j/94110008884>

### Course Format:

You are **required** to meet every week for a live Zoom session

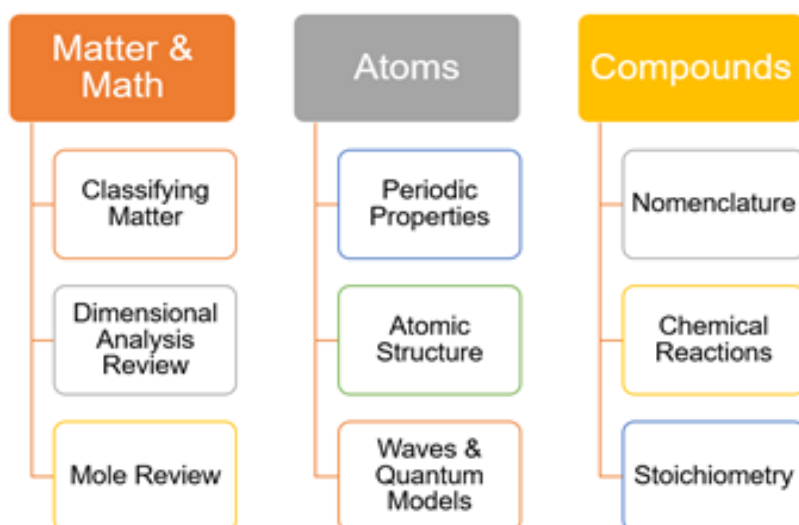
**Mondays: 11 am - 12:20 pm**

**Wednesdays: 11 am-12:20 pm**

**Fridays: 11-11:50 am**

### Course Description:

CH221 is the 1<sup>st</sup> in a 3-course sequence. It is recommended for natural science and pre-professional degree seekers. We will cover:



### Required Materials:

1. **Chemistry: The Molecular Nature of Matter and Change, 9th or 8th Edition, Silberberg.** The textbook is a Digital Direct Access (DDA) text and is included in your tuition unless you opted out.
2. **Knewton Alta Online Homework Access Code.** You have it if you have taken CH 150 at LBCC. You can get a courtesy access for 14 days by using the link <https://support.knewton.com/en/s/article/Starting-Assignments-Without-Purchasing-an-Access-Code>
3. **Scientific Calculator**

**Course Requisite:** MTH095 + one of the following: passing score on the chemistry entrance exam; CH150 with a grade of “C” or better; CH121 with a grade of “C” or better; CH112 with a grade of “C” or better. **Corequisite:** CH221L, MTH111.

### Student Learning Outcomes:

1. Differentiate the developments of the atomic structure and the Periodic Table.
2. Solve scientific problems and apply chemical principles associated with atomic structure, development of electronic structure of atoms, electron configurations and periodic properties.
3. Apply chemical principles associated with chemical bonding models and theories.
4. Solve scientific problems with dimensional analysis and apply chemical principles associated with chemical equations and stoichiometry.
5. Solve scientific problems with quantitative methods and apply chemical principles associated with matter, unit conversions, and uncertainty.
6. Observe chemical phenomena, analyze recorded data, and support and defend the data analysis while working safely in a laboratory environment.

**Student Help Desk: If you need help with technology problems**, 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 web page for details and hours.



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

**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.**

**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 (green puzzle icons) to launch Knewton. The third step is only applicable to students who don't have it already.
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 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).

**Exams:** All quizzes and exams this term will be taken online in the Moodle course site. Check your schedule for the time window.

**Grading:**

**Assignments**

**Percentage**

|                                |             |
|--------------------------------|-------------|
| Homework                       | 15%         |
| Class Participation            | 15%         |
| 5 Quizzes (lowest one dropped) | 30%         |
| Lab                            | 20%         |
| Midterm                        | 10%         |
| Final Exam                     | 10%         |
| -----                          | -----       |
| <b>Total</b>                   | <b>100%</b> |

**Course Grade:**

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

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.



Quizzes and exams are open notes/open books. Open ended questions require you to show your work for credit. You can type work into the space provided in Moodle. You can also show your work on scratch papers. If you use scratch paper, use a picture/pdf program on your phone or scanner and submit the work.

### **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>

### **Drop/Withdraw Policy:**

- If you are withdrawing from the class, file a Schedule Change Form with Registration or use WebRunner. To receive a tuition refund, drop the class by the 2<sup>nd</sup> Monday of the term. To withdraw from the class, drop the class by the end of the 7<sup>th</sup> 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.

### **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](#).

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

- Attend all weekly Zoom meetings. Have your camera on and participate to create a sense of harmonious community in the class.
- 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.
- Review the syllabus to understand the 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.

- Check your LBCC email regularly. Understand your rights and responsibilities as a student and as a class member.

- Follow proper Zoom etiquette.

<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>

**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.

**Flexibility Statement:** This schedule is tentative, and subject to change at the instructor's discretion.

### **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. 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 use this link for further review:

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



## Course Schedule:

| Week | Dates         | Lecture Material                        | Knewton Homework<br>Due <b>Fri at 11:59 PM</b>                            | Assessments   |
|------|---------------|---|---|---|
| 1    | 9/27 - 10/03  | 1.1, 1.5, 1.4<br>2.1, 2.9<br>3.1<br>4.1 |   |   |
| 2    | 10/04 - 10/10 | 2.2, 2.3, 2.4,<br>2.5, 2.6<br>7.1       | CH 1,<br>CH 2.1, 2.9,<br>CH 3.1,<br><br><b>Due Fri 10/08</b>              | <b>Quiz 1</b><br><b>Available 10/07-10/09</b>       |
| 3    | 10/11 - 10/17 | 7.2, 7.3, 7.4<br>8.1                    | CH 2.2,2.3,2.4,2.5,2.6<br>CH 7.1<br><b>Due Fri 10/15</b>                  | <b>Quiz 2</b><br><b>Available 10/14-10/16</b>       |
| 4    | 10/18 - 10/24 | 8.2, 8.3, 8.4<br>2.7, 2.8<br>9.3, 9.5   | CH 7.2, 7.3, 7.4<br>CH 8.1<br><b>Due Fri 10/22</b>                        |   |
| 5    | 10/25 - 10/31 | 2.7, 2.8<br>9.1, 9.2<br>4.1, 4.4<br>3.1 | CH 8.2, 8.4<br>CH 2 (Covalent),<br>CH 9.3, 9.5<br><b>Due Fri 10/29</b>    | <b>Quiz 3</b><br><b>Available 10/28-10/30</b>       |
| 6    | 11/01 - 11/07 | 3.1-3.2<br>4.1<br>10.1                  | CH 2(ionic),<br>CH 9.1, 9.2,<br>CH 4.4,<br>CH 3.1<br><b>Due Fri 11/05</b> | <b>Midterm</b><br><b>Available 11/04 - 11/06</b>    |
| 7    | 11/08 - 11/14 | 10.2-10.3                               | CH 3.2, 4.1<br>CH 10.1 (part of it)<br><b>Due Fri 11/12</b>               |   |
| 8    | 11/15 - 11/21 | 11.1,11.2,11.3<br>3.3<br>4.3            | CH 10.1, 10.2, 10.3,<br>CH 11.1<br><b>Due Fri 11/19</b>                   | <b>Quiz 4</b><br><b>Available 11/18-11/20</b>       |
| 9    | 11/22 - 11/28 | 4.2,4.4,4.6                             | CH 11.2, 4.3,<br>CH 3.3<br><b>Due Fri 11/26</b>                           |   |
| 10   | 11/29 - 12/05 | 3.4                                     | CH 4.2,4.3,3.4 (1 section)<br><b>Due Fri 12/03</b>                        | <b>Quiz 5</b><br><b>Available 12/02 – 12/04</b>     |
| 11   | 12/06 - 12/12 |   | CH 3.4<br><b>Due Wed 12/08</b>  | <b>Final Exam</b><br><b>Available 12/06 - 12/08</b> |