CH-223: General Chemistry III Summer **2019**

Instructor	Office	Email	Office Hours
David Rogow	MH-211	rogowd@linnbenton.edu	Thurs. 12:00-1:00 pm

Lecture: (CRN 12652)
Tuesdays & Thursdays: 1:00-2:50 pm in Madrone Hall, Room 208 (MH-208)

Laboratory: (CRN 15993)
Wednesdays: 1:00-3:50 pm in Madrone Hall, Room 214 (MH 214)

Science Help Desk:
The Science Help Desk is located on the first floor of Madrone Hall in the atrium area. The Help Desk is staffed approximately 20 hours per week. Hours of the Help Desk are posted in the Help Desk area.

Course Learning Outcomes:
- Solve scientific problems with quantitative methods regarding rates of reactions, chemical equilibrium, thermodynamics, and electrochemistry.
- Apply chemical principles related to chemical kinetics, rates and mechanisms of chemical reactions, equilibrium, thermochemistry, and electrochemistry.
- Work safely in a laboratory environment while observing and accurately recording measurements related to chemical phenomena.

Prerequisites:
College Algebra (MTH 111) and General Chemistry II (CH 222) with a C or better

Required Materials:
Chemistry: The Molecular Nature of Matter and Change, 7th or 8th Ed., Silberberg
Access Code for Knewton Alta online homework
Chemistry 223 Manual, by Bridgid Backus and Marci Moling
Carbonless copy Lab Notebook
Non-graphing/programmable Scientific Calculator

Optional Materials:
Lab coat
Personal Safety Goggles

Calculator Policy:
Students will be required to use a non-graphing/non-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 TI 30xa for use on exams and/or quizzes.

Attendance and Classroom Decorum:
Class attendance is very important to the learning of chemistry. Students are expected to attend class regularly and on time. Entering the classroom late or leaving before the class ends is distracting to students and your instructor. **Cell phone use is NOT ALLOWED in the classroom.** The use of a laptop computer during lecture class is approved for CH 223 lecture material **only, i.e. lecture is not a time to do homework**.

Homework Problem Sets:
To succeed in chemistry, like learning a foreign language, you should study and practice every day. As material is covered in class, you will find that the problems are more straightforward to work and not as time consuming as if they are attempted just before the due date. Keep in mind a typical science course takes **3-4 hrs of work per week outside of class for every credit hour**. Refer to the schedule for homework due dates and times.
***No late homework will be accepted.**

Quizzes:
Quizzes will occur almost daily in lecture. There will be in-class quizzes and take-home quizzes. The take-home quizzes will be given at the end of lecture and will be due at the beginning of the following lecture. The lowest quiz score will be dropped. Quizzes will reflect material from the previous lecture(s) and any homework assigned. The quiz problems are good practice for exams and assist with keeping students up-to-date with material. **No late or make-up quizzes will be given.**

Exams:
All exams are given in class. Students who have conflicts with exam days due to other College functions, illness, or family emergencies must contact the instructor **prior** to the exam. Documentation of the College function, illness, and/or family emergency must be provided to schedule a make-up exam.

Laboratory Reports:
Lab reports are due at the beginning of the next lab session after the completion of the experiment (unless otherwise noted in the schedule). Late lab reports receive a 10% per day mark down. The lowest lab report score will be dropped. You must receive at least 70% of the total lab points to pass the course regardless of passing the lecture. **No make-up labs will be given. Late lab reports will not be accepted (and will be counted as a zero) if they are turned in one week past the due date. Also, if you miss more than three labs or turn in fewer than five reports you will not receive a passing grade for the course. This is a lab class and to pass the course you must pass the laboratory component.**

Pre-lab Questions:
Be sure to check the syllabus for which lab is assigned for a particular week. Most lab experiments described in the manual have pre-lab questions. Many of these questions are designed to emulate the calculations in the laboratory experiment that is about to be performed. By answering these questions BEFORE the lab period students are able to understand and perform the experiment more effectively. Pre-lab questions should be done on separate sheets of paper and are due **within the first 5 minutes** of the lab period. The pre-lab assignments are worth from one to five points of the lab report grade. **No late pre-labs are accepted.**

Grading:

Exams (5 @ 50 pts. each)	250 pts.
Final Exam	150 pts.
Quizzes	~60 pts.
6 Knewton Homework Sets (10 pts. each)	60 pts.
8 Lab Reports (20 pts. each)	160 pts.
Lab Final Exam	50 pts.
Total	~730 pts.

Course Grade:

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 at the time an incomplete is assigned.

Drop/Withdraw Policy:
If you are withdrawing from the class you must file a Schedule Change Form with Registration or use WebRunner. If you formally drop the class **by Monday of the second week of the term**, you will receive a tuition refund. If you withdraw after the Monday of the second week of instruction through the seventh week a **'W'** will show up on your transcript. No withdrawals are allowed after the end of the seventh week. An instructor may not assign a "W" grade.

If you receive financial aid or veteran's benefits PLEASE talk with associates at the appropriate office to determine what effects on eligibility dropping a course will have. Don't jeopardize your eligibility!! You can contact the Financial Aid Office by calling (541) 917-4850 or visit the Financial Aid Office in Takena Hall.

If you stop attending the course without formally withdrawing you will continue to accumulate grades (zeroes for all assignments not turned in) and will receive the grade you earned. You will also be held accountable for all charges on your account.

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.

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.

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 BP1015 in our Board Policies and Administrative Rules.

Instructions to Sign Up for Knewton-Alta:

1. Log into Moodle and navigate to the course page.
2. Click on any homework assignment to launch Knewton (green puzzle piece icons).
3. 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 for a free trial for 14-days.

If you have issues with Knewton, you can use the feedback button, the online chat, or email support@knewton.com.

Lecture and Lab Schedule:

**Note: This schedule of topics, homework due dates, and exam dates is subject to change.

	Tues.	Wed. (Laboratory)	Thurs.	Homework Due
Week 1 6/24-6/27	Syllabus and 16.1-16.4	Safety, 16.4-16.6	16.7, 17.1	
Week 2 7/1-7/5	17.1-17.2	The Iodine Clock Reaction	**Holiday No Class**	*Ch. 16 HW Due Tues. (7/2) at 11:59 pm*
Week 3 7/8-7/12	**Exam-1 (Ch. 16, 50 min.)** 17.3-17.5	Le Chatelier's Principle	17.5-17.6	
Week 4 7/15-7/19	17.6, 18.1-18.3, 18.9	Acid-Base Properties of Salt Solutions	**Exam-2 (Ch. 17, 50 min.)** 18.5, 18.4	*Ch. 17 HW Due Tues. (7/16) at 11:59 pm*
Week 5 7/22-7/26	18.6-18.7, 19.1	Titration of a Polyprotic Acid	19.1-19.2	*Ch. 18 HW Due Tues. (7/23) at 11:59 pm*
Week 6 7/29-8/2	**Exam-3 (Ch. 18, 50 min.)** 19.2	Titration of a Polyprotic Base	19.3-19.4	
Week 7 8/5-8/9	20.1-20.2	Solubility Product Constant	**Exam-4 (Ch. 19, 50 min.)** 20.2	*Ch. 19 HW Due Tues. (8/6) at 11:59 pm*
Week 8 8/12-8/16	20.2-20.3	Solubility and Thermodynamics	20.4, 21.1-21.2	*Ch. 20 HW Due Fri. (8/16) at 11:59 pm*
Week 9 8/19-8/23	**Exam-5 (Ch. 20, 50 min.)** 21.2	Electrochemical Cells	21.3-21.4	
Week 10 8/26-8/30	21.4	**Lab Final Exam**	**Final Exam**	*Ch. 21 HW Due Tues. (8/27) at 11:59 pm*