College Chemistry II, CHEM 1451, CRN 27569

Course Syllabus, Spring 2014

Instructor:	Dr. Kristin Dooley
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Office Hours:	T 8:00-11:00 AM W 8:00-10:00 AM, 2:00-4:00 PM *other times by appointment*
Lecture:	TR 2:40 PM -3:55 PM (Laney 103)
Lab:	R 10:50 AM-1:30 PM (Laney 206)
Required Text:	*Chemistry: A Molecular Approach*, 2nd ed., by: Nivaldo Tro
Required Materials:	calculator, goggles.
Lab Manual:	*No purchased lab manual is required for this course. You will be expected to download and print lab exercises prior to each lab.*

Course Description

This course is required for chemistry, biology, and chemical physics majors, and for medical pre-professional tracks. This course will consist of lecture discussions as well as laboratory activities.

Prerequisite

A C grade or better in CHEM 1450 is required to take this course.

Course Objectives

The main objective in this course is to acquire a solid foundation in general chemistry by mastering skills in numerous topics that can be applied in further coursework. Skills learned in CHEM 1450 will be applied to topics such as chemical equilibrium, thermodynamics, kinetics, electrochemistry, solution chemistry, and nuclear chemistry. These skills also include sound lab practices and techniques that will complement the topics covered in lecture.

Grading

- Your overall grade in this course is calculated based on a weighted average of your percentages in the following categories: Hourly Exams, Quizzes, Labs, and Final Exam. The weightings of these categories are shown in the following table.
- Four **Exams** will be given throughout this course. The dates of these exams can be found on the Lecture Schedule. Date changes for exams will be announced at least 1 lecture meeting in advance of the test date. No exam scores will be dropped. *Exams that are missed will be made-up or replaced by your final exam grade only in cases of emergency or prior arrangement.* I am the final decision-maker as to whether an absence excuse is deserving of consideration. In most cases, this means an email or phone call as soon as possible after the conflict/emergency is discovered.
- **Lecture Quizzes** will usually be given during the first 10-15 minutes of lecture, and will be announced. One quiz grade will be dropped. There will be no make-up quizzes given. You can expect these to occur about once a week.
- The **lab** for this course is meant to introduce you to experimental design and techniques and complement material covered in the course. You will receive a grade out of a possible 15 Points based on your performance at each lab meeting. This grade may consist of various combinations of points from participation, lab quiz, and lab sheets. Your lowest lab experiment grade will be dropped. More information about these assignments is explained later in the syllabus.

- **Assignments** of Chapter Problems will be given on a regular basis. Although I do not take up or grade these assignments, your quizzes will often contain a problem from the current assignment.
- The course's **final exam** will be comprehensive, and no portion of the final exam will be dropped. I write the final exam, and it will look very similar to your hourly exams in terms of format, although it will be somewhat longer.

Point Distribution

Category:		Portion of Final Grade:
Hourly Exams	4 @ 100 Points Each	50%
Quizzes	Approx 10 @ 15 Points Each	15%
Lab	11 @ 15 Points Each	15%
Final Exam	100 Points	20%
	TOTAL:	**100%**

Grading Scale **Grades: A: 90-100 % B: 80-90 C: 70-80 D: 60-70 F: <60**

Grade Calculation

YOUR GRADE IN THIS COURSE SHOULD NOT BE A MYSTERY! I will return most of your graded work for you to keep. Your course grade can be easily calculated by hand at any point in the semester, and there are even a number of smart phone apps available that students in the past have used to keep up with their current grade. Because I am using a website to communicate with you, I cannot post grades online. To make sure we are all current, I will print a list of your grades and current course average after each exam to help you keep up with your grade.

Please see me if you have ANY questions about your grade or how to calculate it!!!

Required Materials

This course requires a textbook, a calculator, and goggles. I do not require you to bring your text to class, and I do not mind if you choose to share textbooks or use an online copy. A calculator should be brought to every lecture and lab period as it will be needed for participation, quizzes, lab calculations, and especially exams. Cell phone calculators will not be allowed on quizzes or exams. Calculator sharing during exams or quizzes will not be permitted. Goggles must meet the ANSI Z.87 standard for laboratory eye safety.

Office Hours

To use my office hours most effectively, try to identify the specific point in lecture where you got confused, the homework problem you can't solve, or the exam/quiz question you missed before you come. This will make the best use of this time. If you cannot make my office hours, set up a time when you can come.

Classroom Policies

Attendance:	Students who regularly miss class are rarely successful. It is the student's responsibility to obtain the information/assignments/handouts covered during an absence. An outline of the course schedule is attached to this syllabus. You should obtain specific notes of from missed lectures from a classmate.
Academic Honesty:	Cheating and plagiarism are not tolerated! The penalties for cheating will be severe. (See University Policies, below.)
Makeup Policy:	There will be no makeup labs or quizzes given, barring an extreme circumstance. Exams will only be made up at my discretion if prior arrangements with me through email or in person as soon as you know you will miss an exam. In some cases, rather than a make-up exam, your grade on your final exam may replace the missed exam score.
Disruptions:	Electronic devices should be silenced during class. Texting and other social interactions during class are disrespectful to your classmates and will not be tolerated. Students engaged in these activities will be asked to leave the lecture, and will not be given credit for a quiz/exam given during that lecture period. After multiple warnings, a student may be assigned a WF in the course.

University Policies

Americans with Disabilities Act	The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, please contact the UCA Office of Disability Services, 450-3613.
Academic Integrity	The University of Central Arkansas affirms its commitment to academic integrity and expects all members of the university community to accept shared responsibility for maintaining academic integrity. Students in this course are subject to the provisions of the university's Academic Integrity Policy, approved bay the Board of Trustees as Board Policy No. 709 on February 10, 2010, and published in the Student Handbook. Penalties for academic misconduct in this course may include a failing grade on an assignment, a failing grade in the course, or any other course-related sanction the instructor determines to be appropriate. Continued enrollment in this course affirms a student's acceptance of this university policy.
Course Evaluations	Student evaluations of a course and its professor are a crucial element in helping faculty achieve excellence in the classroom and the institution in demonstrating that students are gaining knowledge. Students may evaluate courses they are taking starting on the Monday of the twelfth week of instruction through the end of finals week by logging in to myUCA and clicking on the Evals button on the top right.
Emergency Procedures	An Emergency Procedures Summary (EPS) for the building in which this class is held will be discussed during the first week of this course. EPS documents for most campus buildings are available at http://uca.edu/mysafety/bep/. Every student should be familiar with emergency procedures for any campus building in which he/she spends timefor classes or other purposes.
Other Policies	Students are encouraged to familiarize themselves with all policies included in the Student Handbook, particularly the Sexual Harassment Policy, and all Academic Policies.

Lecture/Lab Schedule

***This is a tentative schedule. All Experiment and Exam dates and content are subject to change.**

Date			*Lecture Material*	*Lab Activity*
Jan	9	R	Syllabus, Begin Chapter 11	No Lab
	14	T		
	16	R	Finish Ch 11, Chapter 12	Sugar Content by Density
	21	T	Chapter 12	
	23	R		Work Ch 12 Problems
	28	T	**Exam 1: Ch 11, Ch 12**	
	30	R	Chapter 13	Colorimetric Aspirin Determination
Feb	4	T		
	6	R	Chapter 13/Chapter 14	Chemical Kinetics
	11	T		
	13	R		Equilibrium Constant
	18	T		
	20	R	Chapter 15	LeChatelier's Principle
	25	T	**Exam 2: Ch 13, Ch 14**	
	27	R	Chapter 15	TBA
Mar	4	T	Chapter 15/Chapter 16	
	6	R		Making Buffers
	11	T		
	13	R		Weak Acid Titration
	18	T	**NO CLASS: ACS MEETING**	
	20	R	**Exam 3: Ch 15, Ch 16**	No Lab
	25	T	**NO CLASS: SPRING BREAK**	
	27	R	**NO CLASS: SPRING BREAK**	No Lab: Spring Break!
Apr	1	T	Chapter 17	
	3	R		Determination of Ksp
	8	T	Chapter 4.9, Chapter 18	
	10	R		Thermodynamics
	15	T		
	17	R	Chapter 19	Electrochemistry
	22	T	**Exam 4: Ch 17, Ch 18, Ch 19**	
	24	R		TBA
Thursday, May 1, 2:00-4:00 PM COMPREHENSIVE FINAL EXAM				

CHEM1451 Lab Guidelines and Instructions

Lab Instructor

Dr. William S. Taylor
Laney Annex 125
billt@uca.edu

Lab Participation

You will work with at least 1 partner in lab, but it is required that each group member actively participate in each activity. Passive participation will not be tolerated. Lab group assignments may be made if they are needed to combat issues/problems that arise during the course.

Lab Grades

You will receive grades for a total of 11 Lab Experiments, each worth a total of 15 Points. One Lab grade will be dropped. Dr. Taylor will grade your lab exercises and record your lab grades.

Pre-Lab Assignments

Pre-lab Assignments are due **before** the lab experiment begins. Late or incomplete prelabs will result in a loss of the points allotted to them. Unless otherwise stated, assume that the pre-lab assignment includes all of the problems given in that section of the lab activity.

The point of a pre-lab assignment is to ensure that each student that enters the lab is prepared for the day's procedure. An unprepared student is a poor lab partner as well as a safety hazard in the lab. If a student is poorly prepared, he or she may be asked to leave the lab by the instructor.

Due Dates

The completed calculations and Post-Lab assignments will be due at the next lab meeting, unless otherwise stated. Late work will not be accepted except in emergency circumstances when your work could not be turned in early.

Lab Safety

The Chemistry Department's Safety Agreement must be completed BEFORE you will be allowed to work in the lab.

I take lab safety very seriously, and so does Dr. Taylor. For each instance of improper lab safety, 5 points may be deducted from your score on the current experiment. The most common example of this is removing goggles from your eyes onto your forehead. Habitual disregard for safety may result in your being asked to leave the lab. More about lab safety will be covered at the first lab meeting.

My Grades for CHEM1451, Spring 2014

Exam Grades		
Title	Pts Earned	Pts Possible
Exam 1		
Exam 2		
Exam 3		
Exam 4		

Quiz Grades		
Title	Pts Earned	Pts Possible

Lab Grades		
Title	Pts Earned	Pts Possible

Calculating Your Grade

1. Calculate your average in each category.

a. You get to drop 1 Quiz Grade and 1 Lab Grade

Example: You score 14, 12, 15, 10, and 12 on the first 5 Quizzes. All quizzes are out of 15 points possible.

*You would calculate your Quiz average by dropping the 10, and dividing your total earned points by 4*15=60 points possible:*

$$Quiz\ Average = \frac{14 + 12 + 15 + 12}{60} * 100 = 88.3\%$$

2. Put the numbers you calculate for each category into the equation below. The way I have written the equations below, your averages should be between 0 and 100.

a. Before the final, this is how I calculate your grade:

$$Current\ Course\ grade = \frac{(Exam\ Average * .5) + (Quiz\ Average * .15) + (Lab\ Average * .15)}{.80}$$

Example: Your category averages are: Exam: 95, Quiz: 90, Lab: 85. Your current course grade is a 92% or an A:

$$Current\ Course\ grade = \frac{(95 * .5) + (90 * .15) + (85 * .15)}{.80} = \frac{73.75}{.80} = 92$$

b. After the final, I will adjust your exam average using your final exam score. I will also include your final exam score as its own category:

$$Final\ Course\ grade = (Exam\ Average * .5) + (Quiz\ Average * .15) + (Lab\ Average * .15) + (Final\ Exam\ Grade\ * .20)$$