

Fundamentals of Chemistry

CHEM 1301, CRN 35175 and 35441

Course Syllabus, Summer II, 2019

Instructor:	Kristin Dooley
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Office Hours:	By appointment, only.
Lecture:	M-F 9:00 – 10:30 am (Laney-Manion 101)
Required Material:	There is NO TEXT Required for this course! You will need a calculator that is not your phone in class and for tests.

Course Description This course provides an introduction to basic concepts of chemistry for students with very little or no previous background in chemistry. For these students it provides the necessary framework to be successful in subsequent chemistry courses such as CHEM 1450 or CHEM 1402. In addition to lecture, the provided class time will be used for small-group work, demonstrations, and lots of worked examples.

Course Objectives The main objective for this course is to provide the student with the basic skills and confidence to be successful in College Chemistry I (CHEM1450) or in Physiological Chemistry (CHEM1402). The most important of these skills is the development of effective problem solving skills. We will also develop the math skills you will be expected to know in those courses. Basic chemistry skills that you should leave this course with include: understanding a molecular and elemental view of matter, describing chemical and physical properties of matter, naming and writing formulas for simple molecules, balancing chemical equations, using balanced chemical equations to relate amounts of reactants and products, converting between types of units, and being well versed in dimensional analysis. This course will also provide you with an introduction to atomic orbitals, the nature of light, and Lewis Theory of bonding.

Grading

- Your overall grade in this course is calculated based on a simple average of your points accumulated through weekly Exams and Assignments. There are a total of 800 points in the course.
- You will have a 100 point **Exam** each Friday during this course. Date changes for exams will be announced at least 1 lecture meeting in advance of the test date. No exam scores will be dropped. Each exam will be cumulative to encourage you to focus on retaining the skills learned rather than having a “get-by” mentality.
- **Assignments** will be given on Monday, Tuesday, and Wednesday of each week. Each assignment will be worth 20 Points. These are due at the start of the NEXT class meeting. If you are more than 10 minutes late to class, your assignment will be considered late. Late assignments will not be accepted. Because unexpected events do arise despite our best intentions, I will accept a late assignment twice from each student throughout the course. Those assignments need to be turned in within 24 hours of the original due date unless other arrangements have been made with the instructor within that window of time.

Grade Disputes

- Grade disputes concerning scores on specific assignments or exams should be addressed promptly. After the assignment has been returned, the student has 3 weekdays to bring the question to my attention. After that time, the grade on the assignment or exam will not be changed.
- Please make sure that you check the grades I have posted for you, and confirm that they match the grades you see on your returned work. Mistakes happen, and I will be glad to fix the grade I have recorded for you as long as you provide the original graded assignment that does not appear altered. Recording mistakes must be corrected by August 12, 2019 so that final course grades can be posted

Point Distribution

Category:	Total Points Possible:	
Hourly Exams	5 @ 100 Points Each	500 Points
Assignments	15 @ 20 Points Each	300 Points
	TOTAL:	800 Points
	Total:	100%

Grading Scale

**Grades: A: 90-100 % (>715 Points) B: 80-90% (>635 Points)
C: 70-80% (>555 Points) D: 60-70% (>475 Points) F: <60% (Below 475 Points)**

Grade Calculation

YOUR GRADE IN THIS COURSE SHOULD NOT BE A MYSTERY! I post your grades on Blackboard, and will return your graded work for you to keep. Your course grade can be calculated easily by hand, and there are a number of smartphone apps available that can be used to keep up with their current grade.

Website/ Blackboard

The majority of the content of this course will be located on my faculty web page at <http://faculty.uca.edu/kdooley/1301.htm>. This site has a course page where you will find a calendar for the course, study guides for the material, lecture slides, practice exams, and lab materials. Please see me if you have any issues regarding the website.

The Blackboard shell for this course can be accessed through your myUCA account. Unless there are issues with the website, I plan to only use Blackboard to post your grades. You should check these grades periodically to make sure that the numbers that I have recorded for you are consistent with the grades on your assignments. Please alert me if there is a mistake. I will alter a recorded grade if you supply the original assignment in question.

“Remind”

Remind is an app/website that I will use almost exclusively to communicate with you. It allows me to message you important information without the need for cell phone numbers. You may also use this to contact me directly. It is usually a fast way to catch me, but please be respectful of my time and don't expect me to respond immediately on weekends or after 9PM. I will remove the reply functionality if this is abused. **Please communicate with me!!** Not to sound desperate, but I can't help you if I don't know what is going on!

Tips for Being Successful

- Be willing to spend the time necessary to *master* the material as it is introduced. Note that this is probably much more time intensive than the time it takes to “get by” to the next exam, etc. Simply “getting by” will haunt you later on. Remember that this course is meant to pave the way for success in subsequent chemistry classes. You will be far more successful later if take advantage of the time you have now!
- Use me! Because of the nature of a summer course, I don’t have already scheduled office hours. That doesn’t mean that I don’t want to hear from you or help you! Schedule a time with me if you need extra help or have a grade or course related question. And, please take full advantage of using Remind. It is a fantastic way to get a quick question or a homework question answered in a short amount of time.
- Ask questions! Be bold and make sure you are asking and getting help! YOU are responsible for becoming an educated, successful person. I can’t help if you aren’t speaking up!
- Mastery means that you aren’t following just a process or formula to get the right answer but that you are really understanding why that process works for that problem. The only way to do this is to practice problems until that happens for you. One example of this in action is to do the homework a second time without looking at your work. Or, go crazy and ask for more problems!

General 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 with the most minor being a failing grade on the assignment/exam. More severe penalties such as a failing grade for the course will be issued when deemed appropriate by the instructor. (See University Policies, below.)
- Makeup Policy: It is very unlikely that makeup or rescheduled exams will be offered barring an extreme circumstance (short-term, minor illnesses do not qualify as extreme). 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. If something happens the morning of the test, contact me as soon as you are able so that we can get a plan in place concerning what to do about the missed grade.
- 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 grade given during that lecture period.

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 by 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 time for classes or other purposes.
Title IX Disclosure	If a student discloses an act of sexual harassment, discrimination, assault, or other sexual misconduct to a faculty member (as it relates to "student-on-student" or "employee-on-student"), the faculty member cannot maintain complete confidentiality and is required to report the act and may be required to reveal the names of the parties involved. Any allegations made by a student may or may not trigger an investigation. Each situation differs and the obligation to conduct an investigation will depend on those specific set of circumstances. The determination to conduct an investigation will be made by the Title IX Coordinator. For further information, please visit: https://uca.edu/titleix . *Disclosure of sexual misconduct by a third party who is not a student and/or employee is also required if the misconduct occurs when the third party is a participant in a university-sponsored program, event, or activity.
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 Schedule

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

WEEK 1	July 8-12	Topics: Intro to Scientific Method; Atoms, and Molecules, Scientific Notation; Significant Figures; Unit Conversions; Classifying matter Homework Due: Tuesday, Wednesday, and Thursday (Start of Class) Exam on Friday
WEEK 2	July 15-19	Topics: Atomic Theory; Protons, Neutrons, and Electrons; Isotopes; Calculating Atomic Mass; Periodic Table and its patterns; Ions; Making and Naming Ionic Compounds; Naming Molecular Compounds Homework Due: Tuesday, Wednesday, and Thursday (Start of Class) Exam on Friday
WEEK 3	July 22-26	Topics: The MOLE; Converting between grams and moles and number of Atoms/Molecules; Chemical Formulas as Conversion Factors; Mass Percent Composition; Evidence of Chemical Reactions; Solubility Rules; Predicting Precipitation Reactions Homework Due: Tuesday, Wednesday, and Thursday (Start of Class) Exam on Friday
WEEK 4	July 29-Aug 2	Topics: Quantum Mechanical Models for Orbitals; Lewis Structures for Molecules *I will be at a conference Wed and Thursday of this week! Look for videos to address content/ Substitute instructors!*
WEEK 5	August 5-9	Topics: Stoichiometry; Limiting Reactants and Theoretical Yield, Molarity; Using Molarity in Stoichiometry Problems Homework Due: Tuesday, Wednesday, and Thursday (Start of Class) Exam on Friday