

Fundamentals of Chemistry

CHEM 1301, CRN 16690

Course Syllabus, Fall 2014

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| Instructor: | Kristin Dooley |
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| Phone: | 450-5961 |
| Email: | kdooley@uca.edu |
| Office Hours: | T: 1:30-3:00 pm W: 10:00-12:30 pm F: 10:00-12:30 pm <i>other times by appointment</i> |
| Lecture: | MWF 1:00-1:50 pm (Laney 104) |
| Required Material: | <i>Introductory Chemistry</i> (5 th Ed.) by Nivaldo J. Tro Calculator that is not your phone |

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 your points accumulated in the following categories: Hourly Exams, Quizzes, Assignments, and Final Exam. The course will have a total of 1000 points. I don't include bonus points in my courses. You should be working hard from Day 1 and not relying on bonus to get by.
- Five **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. Instead, your lowest exam score (a zero if the

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- exam was missed) may be replaced by your final exam grade provided that this score is higher.
- **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.
 - **Assignments** will occur on approximately a weekly basis. There will be 3 assignments given before each hourly exam and 2 given before the final exam for a total of 17 assignments. They will commonly be problems assigned from your textbook or worksheets provided on my website or given in class. You will be able to find information about the assignments on my website. Your two lowest assignment grades will be dropped.

Firm due dates will be provided at the time that assignments are made. Late assignments will not be accepted.

- The course's **final exam** will be comprehensive, and no portion of the final exam will be dropped. Your score on the final exam will replace your lowest hourly exam grade.
- Grade disputes concerning scores on specific assignments or exams should be addressed promptly. After the assignment has been returned, the student has 1 week 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.

Point Distribution

| Category: | | Total Points Possible: |
|---------------------|---------------------|---------------------------|
| Hourly Exams | 5 @ 100 Points Each | 500 Points |
| Quizzes | 10 @ 10 Points Each | 100 Points |
| Assignments | 15 @ 20 Points Each | 300 Points |
| Final Exam | 100 Points | 100 Points |
| | | TOTAL: 1000 Points |

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 post your grades on Blackboard, and will return most of 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>. 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.

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” the next quiz, exam, etc. Simply “getting by” usually haunts you later on.
- Use my office hours! 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.
- Don’t rely on the drop/replace policy. These are in place as insurance for absences or other unforeseen instances. Do not use this policy to ignore studying for an exam; you will see all of the material again at your final exam date.
- Ask questions. Either in class, thorough email, or during office hours, but make sure your questions get answered.
- Do more homework than I have assigned for a grade. The graded assignments represent a minimum workload for mastery in this course.

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 which will not be able to be dropped. More severe penalties will be issued when deemed appropriate by the instructor. (See University Policies, below.)
- Makeup Policy: Missed exams/quizzes will be dropped as your lowest score. There will be no makeup quizzes or assignments offered. It is also very unlikely that makeup 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.
- 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.

University Policies

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| 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 Support 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 buildings on campus 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.

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| Aug | 22 | F | Syllabus |
| | 25 | M | Chapter 1, Begin Chapter 3.1-3.9 |
| | 27 | W | Chapter 3 Matter and Energy |
| | 29 | F | Chapter 2.1-2.10 Measurement and Problem Solving |
| Sep | 1 | M | No Class: Labor Day |
| | 3 | W | |
| | 5 | F | |
| | 8 | M | |
| | 10 | W | Exam 1: Ch 1, 2, 3 |
| | 12 | F | Chapter 4.1-4.9: Atoms and Elements |
| | 15 | M | |
| | 17 | W | Chapter 5.1-5.8: Molecules and Compounds |
| | 19 | F | |
| | 22 | M | |
| | 24 | W | |
| | 26 | F | |
| | 29 | M | Exam 2: Ch 4 and 5 |
| Oct | 1 | W | Chapter 6.1-6.6: Chemical Composition |
| | 3 | F | |
| | 6 | M | |
| | 8 | W | Chapter 7.1-7.6: Chemical Reactions |
| | 10 | F | |
| | 13 | M | |
| | 15 | W | Exam 3: Ch 6 and 7 |
| | 17 | F | No Class: Fall Break |
| | 20 | M | Chapter 8: Quantities in Chemical Reactions |
| | 22 | W | |
| | 24 | F | |
| | 27 | M | |
| | 29 | W | |
| | 31 | F | Chapter 13.1-13.8: Solutions |
| Nov | 3 | M | |
| | 5 | W | |
| | 7 | F | Exam 4: Ch 8 and 13 |
| | 10 | M | Chapter 9.1-9.8 |
| | 12 | W | |
| | 14 | F | |
| | 17 | M | Chapter 10.1-10.7 |
| | 19 | W | |
| | 21 | F | |
| | 24 | M | Exam 5: Ch 9 and 10 |
| | 26 | W | No Class: Thanksgiving Break |
| | 28 | F | No Class: Thanksgiving Break |
| Dec | 1 | M | Review for Final |
| | 3 | W | Review for Final |
| | 5 | F | No Class: Study Day |
| Monday, December 8, 11:00-1:00 PM COMPREHENSIVE FINAL EXAM | | | |