

# Fundamentals of Chemistry, Chem 1301 Fall 2016 CRN = 21372

Lecture (Laney Manion Hall Rm 102): TTh 2:40 – 3:55 pm

**Instructor** Dr. Patrick Desrochers  
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Web Page:  
<http://faculty.uca.edu/patrickd/chem1301/main1301.htm>  
username = chem1301 password =

**Office hours** **Drop in times: M 3-4 pm, Tu 930-1030 am, WTh 11a-12 pm**  
Use this time. It works best if you come prepared to my office with specific questions about lecture, lab, or homework. Other times available by appointment.



**Text** *Stoichiometry Boot Camp Preparing Students for College Chemistry* 3rd ed.  
R. F. Mauldin and J. J. White, © Pearson 2016

Grading category	possible points	your percent in the category	your points in the category
quizzes	30	Use your pct to determine your points in each category.	
exams	50		
final exam (2 pm, Dec 8)	20		
TOTAL POSSIBLE	100	YOUR TOTAL =	

The lowest quiz and hour exam will be dropped. Final exams may not be dropped.

**Grades: A 85 - 100 points B 77-84 C 68-76 D 57-67 F < 57**

Consult my Chem 1301 webpage for examples of grade calculations.

UCA adheres to the requirements of the Americans with Disabilities Act. A student with a documented disability (e.g., physical, learning psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must at the beginning of the semester contact the instructor and UCA Office of Disability Services at 450-3135.

**Course Description** The purpose of this course is to provide the background necessary for subsequent study in chemistry. Basic concepts of chemistry are discussed for students with limited or no previous chemistry instruction. Lecture, small-group work, and in-class demonstrations are used in the course. CHEM 1301 may not be used to satisfy credit for any degree. Not open to students who have completed CHEM 1402 or 1450.

**Course Objectives**

- understand basic concepts in chemistry in the following content areas: atomic structure, atomic number, atomic mass, elemental symbols, ionic compounds, molecular compounds, nomenclature, chemical equations
- solve problems regarding dimensional analysis, rounding, stoichiometry, molar mass, Avogadro's number, limiting reactant, percent yield, molarity, and solution stoichiometry
- apply the factor-label method (dimensional analysis) to solve problems in chemistry whenever appropriate, particularly with the conversion of units and stoichiometry

**Homework** As with any new skill, you learn best by doing. You will not succWork these problems on a regular basis as they are assigned each day. You must regularly work and *understand* these problems to do well on quizzes and exams.

**Policies**

1. Attendance  
People who miss classes typically do poorly in this course. Do not be one of these people. Three unexcused absences will result in a WF grade. It is the student's responsibility to obtain information covered during an absence.

2. Academic misconduct  
No communication devices may be used during exams or quizzes. Evidence of cheating carries a penalty ranging from a zero on the assignment to complete dismissal from the course with a failing grade. Don't do it.

3. Makeups, late work  
Makeup quizzes or exams will not be offered. A quiz or exam will be dropped as your lowest score.

**Additional university policies and announcements are summarized on the last page of this syllabus. Students should read these announcements and be familiar with the policies they describe.**

## Lecture and Exam Schedule

Date	Lecture topic, module reading	UCA key dates
Aug 18 Th	1: Rounding	
23 Tu	2: Exponents, 3: Solving for x	
25 Th	4: Percentages	
30 Tu	5: Scientific notation	
Sep 1 Th	6: Measurements, Sig. Figures	
6 Tu	7: Calculations, Sig. Figures	
8 Th	<b>Exam 1: Modules 1 – 7</b>	
13 Tu	8: Metric prefixes, conv. factors	
15 Th	9: One-step conversions	
20 Tu	10: Two-step conversions	
22 Th	11: Conversions with squared and cubed units	
27 Tu	12: Conversions with derived units	
29 Th	13: Elements and atomic number	
Oct 4 Tu	<b>Exam 2: Modules 8-13</b>	
6 Th	14: Isotopes and atomic mass	
11 Tu	15: Chemical compounds	Oct 12: midterm grades due
13 Th	16: Balancing reactions, 17: Moles	
18 Tu	18: Molar mass, 19 Percent composition	
20 Th	<b>Fall Break</b>	
25 Tu	20: Avogadro's number	Oct 24: Advanced registration starts
27 Th	<b>Exam 3: Modules 14-20</b>	Oct 28: Final date to for W
Nov 1 Tu	21: Stoichiometry, mole to mole	
3 Th	22: Stoichiometry, mass to mass	
8 Tu	23: Stoichiometry: Limiting reactant, excess reactant(s)	
10 Th	23: Stoichiometry continued	
15 Tu	24: Molarity	
17 Th	25: Solution stoichiometry	
22 Tu	<b>Exam 4: Modules 21-25</b>	
24 Th	<b>Thanksgiving Break</b>	
29 Tu	25: Solution stoichiometry	Nov 28: Final date for WP or WF
Dec 1 Th	25: Solution stoichiometry	
Dec 8 Th	Comprehensive final exam 2:00 - 4:00 pm	

Make a habit of working the assigned questions from each day's class; these will form the basis of questions for office time in advance of quizzes and exams. Good habits established early make a significant impact on your performance in this course.

# University Academic Policies

**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.

**Disabilities Statement** 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 Disability Resource Center, 450-3613.

**Building Emergency Plan** 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 the 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.

**Course Evaluations** Evaluations are kept completely confidential. Your thoughtful feedback is highly valued and cannot negatively or positively affect your course grade. Over the years this information has changed and improved the instruction of this course.

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 thirteenth week of instruction through the end of finals week by logging in to myUCA and clicking on the Evals button in the top right.



2016-17 Student handbook



Laney Manion Hall  
Building emergency plan