

Fundamentals of Chemistry, Chem 1301 Fall 2021

Lecture: Face-to-Face TTh 10:50am – 12:05pm (MAN 102)

CRN = 24220

Instructor Dr. Patrick Desrochers
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Web Page (access anywhere outside Blackboard)
<http://faculty.uca.edu/patrickd/chem1301/main1301.htm>
username = chem1301 password =

Q&A study sessions **Drop in times: These will be determined based on class survey results.**
Use this time. It works best if you come prepared with specific questions about lecture, lab, or homework.
Other times available by appointment.

F2F and covid All will wear a mask during lecture. I strongly encourage all to also be vaccinated. Lectures will be face-to-face. Be responsible, do your part to prevent infections of others and especially any who cannot be vaccinated.

Text Custom text based on *Introductory Chemistry* 6th ed. Coupled with Mastery Chemistry.
N. Tro © Pearson 2020 ISBN-0136829937 / 9780136829935
Detailed instructions on setting this up are posted on Blackboard.

Grading category	possible points	your % in the category	your points in the category
Mastering Chem assignments (on Blackboard)	10	_____	_____
Quizzes (on Blackboard)	20	_____	_____
Exams (face-to-face, Ida Waldran)	50	_____	_____
Final exam (11a–1p, Dec 9)	20	_____	_____
TOTAL POSSIBLE	100		YOUR TOTAL

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

Grades: A 88 - 100 points B 77-87 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 using scientific notation, density, stoichiometry, molar mass, Lewis dot notation, Avogadro's number, and limiting reactant
- apply the factor-label method (develop a mastery of dimensional analysis) to solve problems in chemistry whenever appropriate, particularly with the conversion of units and stoichiometry

Homework You learn best by doing. You will not succeed in this this class without practicing outside of class. Work the recommended problems as they are assigned on a regular basis each day. You must regularly work and *understand* these problems to do well on quizzes and exams.

- Recommended problems from the text are listed on the lecture schedule on following pages. These are to be worked and mastered but will not be collected for credit.
- Mastering Chemistry Assignments to be worked will be assigned (3-5 per lecture). These will be counted as a portion of your overall course grade.

Video Recordings Prerecorded content videos are posted on Blackboard and should be watched before lecture discussions. They are designed to be used in addition to reading the assigned sections in the textbook. My prerecorded explanations are insufficient to satisfy all learning styles.

Lecture time 10:50a-12:05p I will show demos, we will answer questions, clarify points and work LOTS of problems. I might also expand on ideas introduced in the prerecorded videos. I am looking forward to this time to be able to relax and work problems that apply what you learn from careful reading of the book and watching my recordings.

Class Participation Each lecture discussion will have 1-3 short questions you will access using a QR code and your cell phone. The code will appear during lecture. All phone cameras now also double as QR readers. Be sure you know how to use a QR code with your phone by testing the ones at the end of this syllabus. Collectively this participation will equal one quiz grade.

Policies

1. Attendance

People who miss classes typically do poorly in this course. Do not be one of these people. It is the student's responsibility to obtain information covered during an absence.

2. Academic misconduct

Exams will be held in Ida Waldran auditorium on the dates listed. We are seeing a steady stream of cheating with online work, and unfortunately have submitted many formal academic misconduct violations. 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. Quizzes will be announced and offered on Blackboard.

3. Makeups, late work

Makeup quizzes or exams will not be offered. A missed 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.

DO NOT risk this. As chair, I also sign these and have seen nearly every imaginable situation. These go on your permanent academic record, with the ramifications that go with it.

University of Central Arkansas, Board Policy No. 709, adopted February 2010

ACADEMIC INTEGRITY VIOLATION FORM

Instructor Desrochers Date _____
Department Chemistry

Student _____ Student ID _____

Course: CRN 32929 Fall 2021 Prefix & Course Number CHEM 1301
Course Title Fundamentals of Chemistry

Alleged Violation:

Student used Chegg and other online tools to cheat on exam questions.
Student worked with classmates to answer exam questions.
Student copied answers from classmates and offered them as their own on quiz #4.

Explanation:

During a timed exam, the student posted a question from the exam on Chegg. Review of the student's webcam image shows their thumb over the webcam at exactly the same time the question was posted online on Chegg .

Course-Related Penalty:

Zero points on exam or quiz.
Failing grade for the course, despite previously earning solid B's on other exams.

Other Suggested Penalty (optional):

Negative recommendation for medical school, pharmacy school, nursing school (name the school). Why would a school trust this student to handle/administer narcotics if they cannot be trusted not to cheat on an exam or quiz in beginning chemistry.

INSTRUCTOR'S SIGNATURE

DATE

DEPARTMENT CHAIR'S SIGNATURE

DATE

GRADUATE DEAN'S SIGNATURE

DATE

Lecture and Exam Schedule

Date	Lecture topic, textbook chapter	Practice problems to work and understand
Aug 19 Th	Ch 2: Measurements and problem solving	1,3,6,17,18,22,24,31-33,35,36,41-43,45,
24 Tu		49-50,57-60,69-72,74,75,79,81-87,89,90,93,
26 Th	Aug 25: final date for drop/add	95-97, 99-102, 104-106
31 Tu		
Sep 2 Th	Ch 3: Matter and energy Sec 3.2 – 3.10	5,10,22,26,31-33,35,37,39,41-43,45,49,51,
7 Tu		52,63,65c,66d,
9 Th	Ch 4: Atoms and elements	8,12,20,21,27,29,33-35,43-45,51,53-55,57,
	Sep 9: final drop date with 75% refund	
14 Tu		59,61,65,67,68,73,75-78,81,83,87-90,94,
16 Th		97-100
21 Tu	Exam 1 (Ch's 2, 3, 4) face to face in Ida Waldran auditorium	
23 Th	Ch 5: Molecules and compounds	7,9,33-36,40,43,45,47,49,51,53-56,58,59-63,
	Sep 27: midterm grades due	
28 Tu		65,66,69-71,73,83-89
30 Th		
Oct 5 Tu		
7 Th	Ch 6: Chemical composition, Sec 6.1-6.7	8,10,11,17-20,23,25-29,33-35,37-40,45-47,
12 Tu		49,52,53,55,56,60-62,67-68,71,72,77,79,81,
14 Th		83,85-86
19 Tu		
21 Th	FALL BREAK – NO CLASSES	
26 Tu	Exam 2 (Ch 5, Sec 6.1-6.7) face to face in Ida Waldran auditorium	
	Oct 27: Adv. Reg. starts for Spring 2022	
28 Th	Ch 6: Empirical/Molecular formulas Sec. 6.8-9	Ch 6: 87,91-94,99,100 formulas
Nov 2 Tu	Ch 10: Chemical bonding Sec. 10.1-10.6	Ch 10: 2,4,6,7,12,25,26,35,36,47-54,55(a,b),
	Nov 5: Final date for W grade	56(c,d),57(b,c),58(c)
4 Th		
9 Tu	Ch 7: Chemical reactions	Ch 7: 2,7,25,30-32,35-38,44-50
11 Th		
16 Tu	Exam 3 (Ch 6.1-6.9, Ch 7, Ch 10) face to face in Ida Waldran auditorium	
18 Th	Ch 8: Quantities in chemical reactions	2-4,10,12,17-21,27-31,33-36,40-42,45,46,
23 Tu		49-58
25 Th	THANKSGIVING BREAK – NO CLASSES	
30 Tu		
Dec 2 Th		
Dec 9 Th	Comprehensive Final Exam 11:00 am – 1:00 pm face to face in Ida Waldran auditorium	

Make a habit of working the assigned questions from each day's class; these will form the basis of questions for Q&A time in advance of quizzes and exams. Good habits established early make a significant impact on your performance in this course, and more importantly, the chemistry course(s) that follow as part of your major.

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.



2021-22 Student handbook



Manion Hall
Building emergency plan