

CHEM 1402 (CRN 19986)
General Chemistry for Health Sciences I
Fall 2016

Instructor: Dr. Marsha D. Massey

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Office Hours: M 10:00 am – 12:30 pm; W 3:30 – 5:30 pm; R 2:30 – 4:00 pm or by appointment

Course Information:

Lecture:

TR 9:25 – 10:40 am
(Laney-Manion 104)

Lab:

W 1:00 – 2:50 pm
(Laney-Manion 202)

Materials Required:

- Textbook: “Fundamentals of General, Organic, and Biological Chemistry” by McMurry, Ballantine, Hoeger, and Peterson. 7th edition. ISBN: 978-0-321-75083-9
- Blackboard (for assignments, lab manuals etc)
- 50 - 3x5” index cards (preferred one side with lines)
- 1 – 100 page, bound notebook with lined paper for homework journal
- Scientific calculator
- ANSI Z87-approved safety glasses or goggles for lab

Blackboard will be used to provide electronic copies of lab procedures and assignments. You should either use your laptop* during lab or bring a printed copy with you to lab. Part of your lab participation points will include bringing your pre-lab materials before the start of lab.

*The university and its affiliates are not responsible for any damage to your technology (ex: laptops, tablets, cellphones) used in lab or class.

Course Description	This course will introduce the principles of general chemistry related to health-related science professions. The course will include lecture, small-group work, and laboratory activities. This is a required course for a BS in Nursing and other allied-health baccalaureate degrees. This course is part one of a two-part health sciences chemistry course.
Prerequisite	ACT mathematics score of at least 21 or corequisite/prerequisite of MATH 1390. It is also recommended that students have taken and passed high school chemistry or CHEM 1302 with a C or better. Students are expected to have previous exposure to chemistry as well as developed algebraic skills. Mathematical manipulations will occur daily.

Course Objectives	Students will be able to apply general chemistry concepts to real-world applications, particularly those related to the health sciences and their associated professions. Students will become confident in performing calculations and evaluations essential to health science professionals.
Office Hours	Take advantage of office hours early in the semester. Come to see me the moment you are concerned about understanding course material. This time is most effective if you come prepared with specific questions. If the times listed do not work for your schedule, contact me to make an appointment.

Grades:

Assignment	Total Assigned	Points Per	Number Counted	Total Points
Quizzes	28	5	25	125
Homework Journals	6	5	5	25
Problem Sets	6	10	5	50
Exams	4	150	3	450
Final Exam	1	200	1	200
Labs	11	15	10	150
Total Points				1000

A: 1000 – 900 **B:** 800 – 890 **C:** 700 – 790 **D:** 600 – 690 **F:** <600

Late assignments will receive 50% credit of assigned grade, if turned in no later than two (2) days late. Assignments turned in later than two days after deadline can be submitted for evaluation but will receive a grade of zero (0).

Assignment extensions may be granted in the case of unavoidable circumstances (medical or family emergencies). In these instances, you can be granted (in writing) no more than 48 hours to turn in the assignment for full credit. If you do not adhere to the new deadline zero points will be given for the assignment. In severe cases please see me for additional accommodations which will be determined in cooperation with the university.

Academic Accommodations: 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, 501-450-3613.

Attendance for this course is mandatory. Notecard questions will be given to determine attendance daily. You are permitted three (3) unexcused absences. In the case of illness, please have your medical provider send a note within two (2) days of returning to class.

Classroom Etiquette: You are expected to be *engaged* and respectful of everyone's time in lab and class. Do not use cell phones during class time. Laptops/tablets are only to be used for taking notes during lecture or working problems in problem sessions. Checking email, reviewing social media, browsing the web, and any other non-class related activity is **unacceptable**.

Consequences for using technology inappropriately or disrupting the class will be loss of attendance points. The first disruption is a warning. The second two (2) offenses lose 5 points each, after which the student will be dropped from the class.

Note that ONLY calculators can be used for exams and/or quizzes. Cellphones, tablets, laptops and other electronics cannot be used in place of calculators. Calculators cannot be shared between students. **Graphing calculators cannot be used for exams.**

E-mail Policy: I will reply to your email promptly as possible. Please keep in mind like yourselves I have a schedule full of classes, meetings, and additional life matters to address daily. Thus, please allow for **24 hours** after your e-mail has been sent for me to send a reply. Holidays and weekends I may require more time, but I will endeavor to reply that your message has been received. I will only reply to UCA email addresses.

Assignment Details:

Homework Journal/Notebook	<p>Recommended practice problems will be posted on Blackboard. These problems are for your benefit and are strongly recommended.</p> <p>During the semester you will be required to turn-in your homework journal to me six (6) times. You will receive points based on <u>completion</u>. Problems will be reviewed for completeness, but NOT assessed for correctness.</p> <p>To receive full credit, you must show step-by-step work for at least 10 recommended practice problems per chapter that has been covered in lecture, before the date it is collected.</p> <p>If we have covered 3 chapters at the time when you're required to turn it in, that means you must have at least 30 total problems with work shown (10 problems from each chapter). You need to do homework problems daily.</p>
Assignments/ Problem Sets	Six (6) problem sets will be posted on Blackboard for your completion. All assignments should be <u>turned in electronically via Blackboard</u> before start of class on the designated deadline.
Notecard Questions	Most "quizzes" will be completed using 3x5" index cards (notecards). A question/prompt will be provided at the beginning or end of the class period. These will be counted for points towards your course grade.
Exams	There will be four (4) exams throughout the semester as outlined in the tentative course calendar. <u>I will not offer make-up exams.</u>

Laboratory Points (15 pts each):

There will be 11 laboratory class sessions you must attend. Your laboratory points will be determined as follows:

Pre-lab (5 pts), you must bring your printed lab or have your laptop ready with the document to fill-in. Any assigned work must be completed and **submitted online via Blackboard** before Wednesday 12:30 pm (Note: That is 30 min before lab starts at 1 pm).

Post-lab (5 pts), you must turn in your work by the assigned deadline online via Blackboard or as a hard copy before you leave lab. Each question will be worth 1 pt unless otherwise marked.

Participation (5 pts), you must come to lab in proper attire. You must be wearing your lab goggles and proper attire before entering the lab to receive all of your lab participation points. This grade also includes lab cleanliness and friendliness. **Lab safety is essential.** Thus, you only get one (1) warning to follow safety guidelines. After the second warning, you will lose 2 pts. A third warning you lose all 5 pts. A fourth warning you will be dismissed from lab with a grade of zero for that lab day (15 pts lost). Warnings will come from your TA(s) also.

General Information:

Academic Integrity	<p>Cheating and plagiarism (using someone else's work as your own) will not be tolerated. Severe penalties will result from any form of academic dishonesty. This is never worth the risk.</p> <p>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.</p> <p>To clarify what constitutes plagiarism please see the following link: http://uca.edu/academicaffairs/files/2012/08/Plagiarism.pdf</p>
Emergency Procedures Summary	<p>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.</p>

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 . <i>*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.</i>
Student 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. You are encouraged to evaluate the courses which you are taking starting on the Monday of the thirteenth week of instruction November 14 through the end of finals week by logging in to myUCA and searching “Evals” for the “Course Evaluation” button. Try this link: https://my.uca.edu/tasks/course-evaluations/?launch
Extra Credit Opportunities	There will be at least three different methods of earning extra credit points. A maximum of 30 pts can be earned for the entire semester. <ol style="list-style-type: none"> 1. You can do up to three (3) surveys for 5 pts each. You can earn a maximum of 15 pts via this opportunity. 2. You can submit a paragraph (200 – 400 words) with an accompanying image to demonstrate a real-world application of a topic covered in the course. Examples given in your textbook, in class, or on Blackboard cannot be used. Each submission can earn up to 5 pts. You can earn maximum of 10 pts via this opportunity. 3. You can submit a single review question based on the review question guidelines posted on Blackboard. Each submission can earn up to 10 pts. You can earn maximum 20 pts via this opportunity.

Technology Instructions:

Laboratory Safety Agreement – required for admittance to first lab

Go to <https://uca.edu/web/forms/view.php?id=1095>

Complete the Form

Blackboard – contains class slides, handouts, homework problems, announcements, syllabus, evaluation forms, etc. You will also turn in your problem sets, pre-lab, and post-lab assignments here.

Log into your MyUCA account

Click on the “Essentials” tab at the top, then select “Current Students”

Click on the “Blackboard” box, at the top select “Courses”

Click on “GEN CHEM FOR HEALTH SCI”

Course Schedule:**
(Note: lab and exam dates will not change)

wk	Dates	Topics	Reading	Assignments
0	R – Aug 18	Syllabus & Introduction	blackboard	Note: All due <u>before</u> class at 9:20 am
1	T – Aug 23	Matter & Life	Chp 1	
	<i>W – Aug 24</i>	LAB 1 – Laboratory Safety	blackboard	Required safety contract online
	R – Aug 25	Measurements in Chemistry	Chp 2	
2	T – Aug 30	“	“	Hmwk Journal 1 due
	<i>W – Aug 31</i>	LAB 2 – Scientific Notation & Significant Figures	blackboard	-
	R – Sept 1	Atoms and Periodic Table	Chp 3	
3	T – Sept 6	“	“	Hmwk Journal 2 due
	<i>W – Sept 7</i>	LAB 3 – Detecting Signs of Chemical Changes	blackboard	-
	R – Sept 8	Atoms and Periodic Table (cont)	Chp 3	
4	T – Sept 13	“	“	Problem Set 1 due
	<i>W – Sept 14</i>	LAB 4 – Physiological Important Ions	blackboard	-
	R – Sept 15	Ionic Compounds	Chp 4	
5	T – Sept 20	EXAM 1	-	Hmwk Journal 3 due
	<i>W – Sept 21</i>	LAB 5 – Balancing Reactions	blackboard	-
	R – Sept 22	Ionic Compounds (cont)	Chp 4	
6	T – Sept 27	Molecular Compounds	Chp 5	Problem Set 2 due
	<i>W – Sept 28</i>	LAB 6 – Lewis Structure Drawing Studio (Dry Lab)	blackboard	-
	R – Sept 29	Chemical Reactions	Chp 6	
7	T – Oct 4	“		Problem Set 3 due
	<i>W – Oct 5</i>	LAB 7 - Chromatography	blackboard	-
	R – Oct 6	Chemical Reactions (cont)	Chp 6	
8	T – Oct 11	EXAM 2	-	Hmwk Journal 4 due
	<i>W – Oct 12</i>	No lab	-	--
	[R – Oct 13]	Fall Break – No class	-	--
9	T – Oct 18	Gases, Liquids, & Solids	Chp 8	
	<i>W – Oct 19</i>	LAB 8 – Hydrogen Bonding Worksheet (Dry Lab)	blackboard	-
	R – Oct 20	Solutions	Chp 9	
10	T – Oct 23	“	“	Problem Set 4 due

10 (cont)	W – Oct 24	LAB 9 – pH (Dry Lab)	blackboard	-
	R – Oct 27	Energy, Rate and Equilibrium	Chp 7	
11	T – Nov 1	EXAM 3	-	Hmwk Journal 5 due
	W – Nov 2	No lab	-	--
	R – Nov 3	Energy, etc (cont.)	Chp 7	
12	T – Nov 8	<i>Election Day – problem session</i>	blackboard	Problem Set 5 due
	W – Nov 9	LAB 10 – Titration of Vinegar	blackboard	-
	R – Nov 10	Acid/Bases	Chp 10	
13	T – Nov 15	“	“	Hmwk Journal 6 due
	W – Nov 16	LAB 11- Application & Review of General Chemistry (Dry Lab) Last Day of Lab	blackboard	-
	R – Nov 17	Acid/Bases (cont)	Chp 10	
14	T – Nov 22	EXAM 4	-	Problem Set 6 due
	[W – Nov 23]	Thanksgiving – No lab	-	--
	[R – Nov 24]	Thanksgiving – No class	-	--
15	T – Nov 29	Functional Groups	blackboard	
	R – Dec 1	Functional Groups/ Review Last Day of Class	“	
Final Exam	Tuesday, December 6th at 8:00 – 10:00 a		<u>Comprehensive Final Exam</u>	

**The instructor reserves the right to change the schedule at any time. Exceptions: Lab and exam scheduled dates, unless the university closes.

Syllabus highlights:

- Attendance is mandatory for lecture and lab.
- 3x5” index card questions daily.
- Assignments due **BEFORE** start of class at **9:20 am** on Blackboard.
- Late assignments will only be graded 1-2 days after due date and can receive only 50% credit of assigned grade.
- Start and keep doing recommended homework problems in a bound notebook – this is a homework journal and will be reviewed for a grade 6 times during the semester.
- All problem sets posted on Blackboard and submitted on Blackboard.
- **No** make-up exams/assignments offered. Keep deadlines in mind.
- Use office hours effectively: come early in the semester and come prepared as possible.
- **Exam times:**
 - Exam 1 – Tuesday, September 20th
 - Exam 2 – Tuesday, October 11th
 - Exam 3 – Tuesday, November 1st
 - Exam 4 – Tuesday, November 22nd
- **Final exam:** Tuesday, December 6th at 8:00 – 10:00 am