Course Syllabus

General Chemistry for Health Sciences/CHEM 1402

Fall, 2016

Instructor: Lori Isom
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Office Hours: W 8:50-9:30am; 10:50-11:45am
F 8:50-9:30am;10:50-11:30am

Class Times:

Lecture:	M, W, F 8:00-8:50 am Room 102 Laney-Manion Hall
Lab:	M 11:00 – 12:50 (Isom) Room 202 Laney-Manion Hall
	M 1:00-2:50pm (Kelley) Room 202 Laney-Manion Hall
	M 3:00-4:50pm (Weaver) Room 202 Laney-Manion Hall

Course Description

General Chemistry for Health Sciences (CHEM 1402) is the first part of a two semester survey course covering chemistry topics relevant to health science professions. Because of the health science focus, this course will differ significantly from a typical college chemistry course. Specifically, the course will include information concerning clinical aspects of chemistry, including biological processes and illnesses and medical diagnostic procedures as they are related to the general chemistry information. You will be responsible for the clinical topics as well as the chemistry information covered in this course. . Because we will also be discussing forensics and the biochemical basis of physiological processes, some students may find these topics disturbing or offensive. Consider yourself forewarned that much of the material in the course requires a mature consideration of a variety of topics ranging from erectile dysfunction and breast feeding to post-mortem bodily processes and death. Regardless of the topic, students will be expected to learn the information presented in the class.

NOT ALL INFORMATION COVERED IN THIS COURSE WILL BE IN YOUR TEXT BOOK!!! Supplemental information will be covered in lectures and you will be responsible for understanding these additional topics also.

Prerequisites:

You must have a UCA email account and access to the Internet. Each student has an email account assigned to them free of charge upon registration. Contact information technology (450-3107) or visit their web site (http://it.uca.edu/index.shtml) to activate your account. Internet access is available through computer clusters throughout the campus.

General Chemistry for Health Sciences (CHEM 1402) has a pre-requisite of CHEM 1302 and/or High School Chemistry. **It is assumed that students enrolled in this course have some previous exposure to chemistry and have developed simple algebraic skills.** If you do not have a strong background in High School Chemistry or if it has been a long time since your last high school class, you should consider taking Chem 1301 Fundamentals of Chemistry before attempting this class.

Course Materials

Fundamentals of General, Organic, and Biological Chemistry, 7th edition, by McMurry and Castellion
Approved Lab safety goggles

Course Strategy

Learning chemistry requires the development of certain thinking skills that are unique to chemistry and the other physical sciences. Studying and learning chemistry can be difficult, especially at first. The suggestions below should help you spend your study time wisely. Generally, you should set aside 2-3 hours of study time per hour of class time (lecture period). This does not include the extra study time that will be required around exam time.

The best way to study for this course is described below:

1) Before lecture, read chapter summaries and topics to be covered.
2) Attend class lectures. Some of the information included in my lectures will not be found in your text. While attending class is your choice, you will be held responsible for material presented in class, regardless of whether it is included in your text book or not. More so than possibly any other subject, students who do not attend class are unlikely to succeed in this course.
3) After lecture, read the text in detail and review lecture notes. Both will re-emphasize the material, helping to clarify it in your mind. Emphasize areas that were unclear to you after lecture.
4) **PRACTICE, PRACTICE, PRACTICE!!** Working examples in the text and problems at the end of the chapter are extremely important tools for transforming concepts into concrete knowledge. This is possibly the most important transition that much occur to succeed in this course.
5) Ask questions and get help! If you are confused about a topic or have questions PLEASE ASK for help or clarification!! If you have a question during lecture, please ask it. If you get lost at one point in the lecture it is unlikely that the remaining part of the lecture will make any sense. Don't be embarrassed – if you have questions it means you are paying attention. I am also available to answer questions during my office hours.

Class Communications

Students are required to obtain all information missed from class absences from their peers. It is a very good idea to have a classmate record a lecture that you know you will miss. Once notes and/or lecture recording(s) have been obtained and reviewed, students should come to my office during office hours to clarify any confusion about the missed material.

If a texting app service is used for the class, class announcements may be sent out by email and/or text. Students should check their UCA email account regularly for class information/reminders.

I will check my UCA email regularly during working hours, ~8am-5pm, M-F. I cannot respond to inquiries that require in depth explanations or instruction. Students should come to my office hours for such information. Students should not expect instant (especially last minute) or continuous access via email.

Class Attendance
Class attendance is strongly recommended. Those students who attend class regularly are the most likely to succeed in this course. Also, quizzes will be given regularly and if you don't attend class you will likely miss one or more quizzes. As mentioned above, a significant part of the material presented in this course will not be in the textbook. So attending class is necessary to obtain all the information that you will be held responsible for on the tests. If you miss 4 or more class periods (whole or in part) you may be dropped from the course at the discretion of the Instructor.

Make-up Policy
Make-up exams will be given **only** at my discretion. If you must miss an exam for an unavoidable, significant and validated reason (I decide what is unavoidable, significant, etc), contact me by email or phone (leave a message) **BEFORE** the time of the scheduled exam.

Any student who is absent from class for two consecutive weeks or misses more than nine classes during the semester may be dropped from the course with a WF.
No make-up quizzes or labs will be given (except under extreme circumstances that I deem appropriate).

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 [*November 12th*] through the end of finals week by logging in to myUCA and clicking on the Evals button on the top right.

Academic Dishonesty
The penalties for cheating (ie. representing someone else's work as your own) are SEVERE!! Penalties include, but are not limited to, assigning an "F" for the work and/or the course to expulsion from the University.

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.

Plagiarism is cheating. The following link is provided to help students understand what constitutes plagiarism.

http://uca.edu/academicaffairs/files/2012/08/Plagiarism.pdf

Class Disruptions / Cell Phones / PDA's / Calculators

Students are expected to be engaged and attentive during lecture and to act respectfully toward the instructor(s) and their peers throughout the duration of the class, including all lectures, lab and review sessions. Students who act in a disrespectful or disruptive manner (talking during lecture, sleeping in class, intolerance for other students' questions, etc.) will be required to leave the class and will not be allowed to make up any assignments or exams missed because of the dismissal. If the behavior continues, the student will be dropped from the class by the instructor and assigned the appropriate grade.

Cell phones and other electronics are not allowed in the student's possession during exams and/or quizzes. Any student wishing to bring one of these devices to class during testing are required to leave the device on the desk at the front of the classroom at their own risk. The student is solely responsible for the safety of their devices if they choose to bring them into the classroom during exam times. Calculators are allowed only during those quizzes/exams requiring them. This is solely at the instructor's discretion.

Possession of cell phones / laptops / tablets is permitted during regular lectures, labs and reviews at the discretion of the instructor. However these devices should be silenced prior to class to minimize the potential disruption of the lecture or other class activities. These technologies can be used effectively if their use during class time is restricted to class related activities, i.e. recording lecture, taking notes, viewing online slides. If the instructor suspects that the technology is being used in a way that is disruptive or distracting to the student, the student will be required to stop using the technology during class time. This means during class time students should not be accessing facebook, twitter, youtube, google, internet browsers, or any other activity not directly related to lecture. Students who continue to engage in disruptive/distracting behavior will be required to leave class and no make up work for what is missed will be allowed.

Grading

The following is a **tentative** description of the exams/quizzes/laboratory reports included in this class. Specific numbers may be changed if deemed necessary. Four Exams will be given in addition to a number of quizzes both **announced and unannounced (in lab and in class)**. Quizzes are intended to motivate you to keep up to date on your studies. Homework **may** also be assigned and collected if I deem necessary. Whether homework will be graded or not is also left to my discretion. Final exam will be comprehensive.

Exam grades **will not be curved** in the traditional sense of the word. A curve involves adding points to exam grades to raise the class average to a "C". Therefore, the average grade on an exam in this course will not necessarily be a C. However I do reserve the right to adjust exam scores when I deem necessary.

The following grading scale and assessments may be altered at any time by the instructor as seen fit and appropriate for a given class. However, a student will always have the option to apply the following scale and take the maximum number of exams (3 plus final) below if they deem it

would be beneficial for their grade. The scale and number of exams reflects a maximum and will not be increased. For instance, a student whose average at the end of the semester is 90% is guaranteed an A. This threshold will not be raised, it may however be lowered at the instructor's discretion.

Optional quizzes and miscellaneous assignments are included at the discretion of the instructor and therefore a range of potential points is listed. If assigned, the points will be included in grade calculation and are not optional.

In addition to classroom participation and content, students will be required to watch and will be responsible for all information contained in any custom videos prepared and assigned by the instructor. The information contained will likely be included on quizzes, exams, and other assignments.

If a student decides to drop a class, this decision is solely the responsibility of the student and should be made understanding the grade calculation methods explained and the instructor's right to adjust these when grades are assigned.

If a project/assignment requires the selection and approval of a topic, such selection and approval must be obtained in a timely manner. Delay past the announced deadline will result in the assignment of a 0 grade for the project.

Exams (2-3)	2-3 exams @ 100pts	**200-300 points**
Quizzes (4-6)	4-6 quizzes @ 20pts	8**0 - 120 points**
Misc (Various assignments, class participation, attend quiz)		**0 to 60 points**
Final Exam (comprehensive)		**200 points**
Total		**~480-680 points**

Laboratory (11, drop lowest one)	10 labs/reviews @ 10pts	**100 points**

Will count as 10% of grade.

Overall Average (course grade) = 0.90(Lecture Average) + 0.10(Lab average)

Maximum Scale (subject to change):

A = 90% +
B = 80 – 89%
C = 68 – 79%
D = 60 – 67%
F = < 60%

<u>Important Dates</u>
Aug 24, last day to register or add a class
Oct 12, mid-term grades due to registrar

Nov 11, last day to drop with "W";
Nov 28, last day to drop with "WP" if passing; otherwise a grade of "WF" will be assigned.
Thursday, Dec 7th FINAL EXAM (8 – 10 am)

Drop policy
The last day to drop with a "W" is Nov 11th. If a student drops on or before this date, a "W" is assigned regardless of the student's grade in the course. Students may officially drop the course until Nov 28th, ***however, the grade assigned after Nov 11th will depend on the student's grade status in the course at the time of the withdraw.*** For example, if the student withdraws from the course on Nov 12th and at that time has earned a "C" or better in the course up to that point, a grade of "WP" will be assigned. If, however, the student's grade is below a "C" at the time of withdraw (after Nov 11th but on or before Nov 28th) then a grade of "WF" will be assigned (at the discretion of the instructor). ***This designation is punitive and will negatively affect your grade point average!***

Students not attending class for whatever reason for more than four class periods may be dropped from the course by the instructor, at the instructor's discretion.

Disability Disclosure
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.

Student Handbook Policies
You should familiarize yourself with the policies listed in the 2016-2017 UCA student handbook, especially those related to academics and the sexual harassment policy.

Emergency Procedures Summary
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.*

Laboratory

Drs. Melissa Kelley and K.C. Weaver will be instructing two of the laboratory sections for this course. Students are expected to treat Dr. Kelley and Dr. Weaver with the utmost respect during lab time. These instructors have the same authority and control of their lab sections, and the behavior of the students in that section, as Dr. Isom has in hers. Any disrespectful behavior or class disruption, if severe or persistent, will result in the student being dropped from the course. To allow for consistency, please direct all lab report related questions that arise during the completion of the lab outside of lab time to Dr. Isom during her office hours or make an appointment if necessary.

Lab goggles are required for all students and may be purchased in the bookstore. A student will be dismissed from lab and assigned a zero for the report if caught without eye protection more than once during a lab period. While in lab, pay attention, use common sense and exercise caution. Some of the experiments involve techniques that can be dangerous if proper procedures are not followed.

If you arrive late for a lab period, you most likely will not be allowed to complete the laboratory assignment for that day, at the discretion of the instructor.

The pre-lab portion of each assigned lab must be completed prior to the date the experiment will be performed. I may periodically check for completed pre-labs at the beginning of the lab period. If a student has not completed the pre-lab portion of the lab report, the student may be asked to leave lab without performing the lab and/or points will be deducted from the final lab grade (Instructor's discretion). Unannounced lab quizzes may also be given if I deem necessary.

If a pre-lab is part of a lab (not all labs have pre-labs), these questions must be completed before conducting the experiment. The instructor may periodically check for completed pre-labs at the beginning of the lab period. If a student has not completed the pre-lab portion of the lab report, points will be deducted from the final lab grade. Unannounced lab quizzes may also be given if I deem necessary.

Lab reports not turned in at the requested time at the beginning of a lab session or late lab reports will be accepted only at the discretion of the laboratory instructor.

Stuff I shouldn't have to say…. But do.

1) I cannot discuss grades by phone or email. I do not make appointments by phone.

2) If you do not have another class during my office hours or another pressing and valid reason, you cannot make an appointment to meet with me outside of my office hours. Just so you know… not wanting to get up early enough to come to my office hours is not a valid reason.

3) I will not discuss grades during the last week of the semester. The end of the semester is not the time to be concerned about your grade in the course, unless there are sufficient extenuating circumstances (I determine what those are… and just wanting to know isn't a good reason), I will not make appointments or meet with students dropping by to discuss their grade in the course

4) Students will not be allowed to select the color of the paper, the font, or font size of the exams or other assessment/assignment materials regardless of whether other instructors have provided such accommodation in the past for the student without a validated DSS accommodation requiring the requested action

5) Late work will almost certainly not be accepted because of some unexpected computational or mechanical failure. Be responsible enough to get the assignment in on the time/date it is due. Procrastination is directly correlated with the excuses given above. Don't do it.

6) If you choose to drop the course, the decision is yours. No one else's. I reserve the right to adjust grades/assignments as I deem warranted for a given class after you make your decision.

7) If you miss class, I will not provide make up lecture for you on the material. If you have to miss class, you should try to have someone record lecture for you and get at least two people's notes over the material you missed. You should use these to get up to speed as quickly as possible once you return… After you have done these things, please come to me if you have specific questions about the material you missed.

8) I don't give extra credit. There are plenty of opportunities for credit during the semester.

9) You must submit assignments in the manner requested and follow all directions concerning those assignments/exams or you may lose significant points. Unless specifically stated, assignments/projects cannot be emailed electronically and even those provided electronically will most likely require a hard copy submission as well.

Tentative Class and Lab Schedule

all dates and content are subject to change!

Week		Exams	Lab/Recitation
Aug 19	Introduction		No Lab
Aug 22/24/x	Basics/*Module 1*: Measurement and Dosages		Safety
Aug 29/31/2	Measurement/Periodic Table		Dosage Lab
Sept x/7/9	Periodic Table / **Labor Day**		No Lab
Sept 12/14/16	*Module 2*: Bonds/Geom/Lewis structures		Drug Structure #1
Sept 19/21/23	Bonding/Geometry/Lewis structures	**EXAM 1**	Review 1
Sept 26/28/30	*Module 3*: Reactions/Equilibrium		Chromatography
Oct 3/5/7	Reactions/Equilibrium/LeChatelier's		Balancing
Oct 10/x/x	Acid-Base/**Fall Break**		No Lab
Oct 17/19/21	Acid-Base		Solubility
Oct 24/26/28	Acid-Base		Blood Buffer
Oct 31/2/4	*Module 4*: Organic Chemistry	**EXAM 2**	Review 2
Nov 7/9/11	Organic Chemistry		Drug Structure #2
Nov 14/16/18	Biochemistry		Mystery Lab
Nov 21/x/x	Biochemistry / **Thanksgiving**		TBA
Nov 28/30/x	Biochemistry	**EXAM 3**	TBA

********** Final Exam: Wednesday, December 7th, 8:00 – 10:00 am **********