

**Course Syllabus**  
**Intro to Organic and Biochemistry / Chem 2450**  
**Fall 2018**

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**Instructor:** Lori Isom  
**Office:** 201D, Laney-Manion                      **Office Hours:** T,R 9:15-10:15am& 12:05-12:35pm  
**Phone:** 450-5794  
**Email:** lorii@uca.edu  
**Web Site:** <http://faculty.uca.edu/lorii/home.html>

**Class Time:** 8:00-9:15am Tues and Thurs Room 104 Laney-Manion Hall

**Lab Sections:** Friday Lab 8:00-9:50 Room 202 Laney Manion Hall

Friday Lab 10:00-11:50 Room 202 Laney Manion Hall

**Course Description and Objectives:**

**Course Description**

Intro to Organic and Biochemistry is the second part of a two semester survey course providing an overview of organic and biochemistry. General chemistry is taught in the first semester course (General Chemistry for Health Sciences/CHEM 1402) and enrollment in Intro to Organic and Biochemistry/CHEM 2450 requires a grade of C or better in General Chemistry for Health Sciences/CHEM 1402. 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 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:**

Each student is required to have an active UCA **e-mail account**. This course also requires good quality, functional **access to the internet** and printing. These resources will be necessary to access course management software to collect assignments and provide and communicate course information. Assignments will require that you research information and have the ability to post in google classroom or print your assignments when required. Email and other software are used quite extensively to transmit information concerning assignments to students.

Intro to Organic and Biochemistry (CHEM 2450) has a pre-requisite of completion of CHEM 1402 with a grade of C or better.

## **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 submit most labs and assignments via our Google Classroom page. Many announcements, etc will be posted there.

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. 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.

Also, unannounced attendance quizzes and attendance points for participation may be given at the instructor's discretion and these quizzes can almost never be taken at a later date if you miss class when a quiz is given. Whether a student is excused from an unannounced quiz or allowed to take it at a later date is solely the discretion of the instructor. If you must miss a class during which assessments are given or due, substantial proof (what constitutes this is solely my discretion) of the reason for the absence will be required before any consideration for make up work is granted. Any student who is absent from class for 4 class meetings without contacting me may be dropped from the course with a W (before Nov 19) or an F (after Nov 19). Also, class attendance is considered when class participation is evaluated. Points may also be given for attendance quizzes.

### **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, contact me by email **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 through the end of finals week by logging in to myUCA and clicking on the Evals button on the top right or following the link provided in the email announcing the evaluations sent by UCA.

I appreciate and take very seriously student comments concerning my courses. To encourage evaluation completion, a small number of bonus points may be offered if your course evaluation is completed and confirmation provided within the designated timeframe. Evaluations may be completed any time in the timeframe stated above but to be eligible for the bonus points, students must adhere to the instructions provided including completion timeframe and confirmation.

### 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. Obtaining assistance from other students on work assigned as "student work only" is cheating and will be prosecuted.

Photographing and/or keeping copies of exams and/or quizzes is prohibited and violates the academic dishonesty policy.

**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.**

### Electronic Devices

Electronic devices 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 may be 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. Calculators may be allowed during some quizzes but not during exams. This is solely at the instructor's discretion.

Possession of electronic devices is permitted during regular lectures, labs and reviews, however these devices should be silenced prior to class to minimize the potential disruption of the lecture or other class activities. The use of cell phones during exams or quizzes is strictly prohibited.

### 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. Three Exams will be given in addition to a number of quizzes both **announced and unannounced (in lab and in class)**. Quizzes are intended to help keep you 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.

Late work will not be accepted except at the discretion of the instructor.

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 requirement to earn the stated grade 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.

***Boom/Pass/Fail (sounds like a Black-eyed Peas song...no?) Scale***

Some assignments will be graded on what I call the Boom/Pass/Fail scale. Students earning a passing grade will have completed the assignment thoroughly and correctly. Students earning a Boom grade will have gone far above and beyond what would be expected on the assignment. Students earning a Fail grade would not have completed the assignment satisfactorily to earn a passing grade. Passing grades contribute qualitatively to any participation credit applied in the course but they do not affect a student's numerical grade. A Boom grade also contributes to any participation credit but also includes a small point bonus, which add to a student's total points in the course. A Fail grade negatively affects any participation credit and also may result in the reduction of a student's overall points in the course by 0-2 points.

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 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.

|  |                           |                       |
|--|---------------------------|-----------------------|
| <b>Exams (2-3)</b>   | <b>2-3 exams @ 100pts</b> | <b>200-300 points</b> |
| <b>Quizzes/Assignments</b>   |                           | <b>0-100 points</b>   |
| <b>Miscellaneous (participation, attend quiz, drug proj, other assign)</b> |                           | <b>0 to 60 points</b> |
| <b>Final Exam (comprehensive)</b>  |                           | <b>200 points</b>     |
| <hr/>  |                           |                       |
| <b>Total</b>   |                           | <b>400-660 points</b> |

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

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

**Tentative Scale (subject to change):**

**A = 90% +**

**B = 80 – 89%**

**C = 68 – 79%**

**D = 60 – 67%**

**F = < 60%**

**Important Dates**

Nov 9th Last day to drop with a W

**Drop policy**

The last day to drop with a “W” is Nov9th. If a student drops on or before this date, a “W” is assigned regardless of the student’s grade in the course. The only possible grades assigned after Nov 9th are A-F letter grades and these obviously will impact your grade point average.

Students not attending class for whatever reason for more than four class periods may be dropped from the course (before Nov 9th) by the instructor, at the instructor’s discretion.

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, contact the UCA Disability Resource Center at 450-3613.

Students enrolled in this course who have a medically validated reason and a letter from DSS will be required to take assessments in a location determined by the instructor that provides for the allowances stated from DSS. Any other requests, not specifically provided for in the accommodation letter from DSS, will be considered and up to the sole discretion of the instructor.

**Student Handbook Policies**

You should familiarize yourself with the policies listed in the most recent 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.*

### **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) 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 allowing electronic submission will most likely require a hard copy to be submitted as well.

9) If you don't follow directions and select a topic/drug in a timely manner (ranging from 1-2 weeks before assignment/presentation is due, depending on the assignment), one will not be assigned to you and you will forfeit points for the resulting/related assignment. Except under extenuating circumstances, topics will not be approved via email.

10) If you need to miss a class, it is your responsibility to obtain the missed information and you will forfeit any assignments and their corresponding points collected during that absence. I will not explain what you missed during class by email. The best method for obtaining information if you have to miss class is to have someone record lecture and take notes for you. You should never rely on one person's notes, however, since different people include different information in notes.

### **Laboratory**

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.



**Tenative Class and Lab Schedule**  
**\*all dates/topics are subject to change!\***

| <b>Week Beginning</b> | <b>Lecture</b>                          | <b>Lab</b>                 |
|-----------------------|---|----------------------------|
| Aug x/23              | Introduction                            | No Lab                     |
| Aug 28/30             | Chap 12 & 13: Hydrocarbons              | Safety/1402 Review         |
| Sept 4/6              | Chap 12&13 / Chap 14-17 Fnc Grps        | Isomer Lab                 |
| Sept 11/13            | Chap 14-17 Fnc Grps                     | **Egg Shell Lab            |
| Sept 18/20            | Chap 14-17 Fnc Grps                     | Exam Review Session        |
| Sept 25/27            | Acid/Base and Thermo/ <b>Exam 1</b>     | Drug Structure Lab         |
| Oct 2/4               | Chap 18: Proteins                       | **Blood Buffer Lab         |
| Oct 9/X               | Ch 18: Proteins/ <b>Fall Break</b>      | No Lab (Fall Break)        |
| Oct 16/18             | Chap 18: Proteins                       | Amino Acids/Proteins       |
| Oct 23/25             | Chap 19: Enzymes                        | **DNA Extraction           |
| Oct 30/Nov            | Chap 19: Enzymes                        | **Synthesis of Aspirin Lab |
| Nov 6/7               | Chap 19: Enzymes                        | Drugs 1                    |
| Nov 13/15             | Chap 19: Enzymes                        | Drugs 2                    |
| Nov 20/X              | Chap 22: Carbs/ <b>Thanksgiving</b>     | No Lab (Thanksgiving)      |
| Nov 27/29             | Chap 21 & 23: Metab                     | Exam Review Session        |
| Dec 4/6               | <b>Exam 3</b> /Chap 21 & 23: Metabolism | No Lab (Study Day)         |

\*\*wet lab. Lab glasses and proper attire required\*\*

\*\*\*\*\* Final Exam: Thursday, Dec 13, 8-10am\*\*\*\*\*