

CHEM 110 – Introductory Chemistry Lecture Syllabus, Spring 2018

Lecture: *Mon, Wed, Fri 9:00-9:50 am in 110 Budig Hall*

Discussions: *TBD*

Instructor: **Dr. Lisa Sharpe Elles**, 3033 Malott Hall, sharpeelles@ku.edu, 785-864-4494
Office Hours: Mon. and Tues. 2-3 p.m. or by appointment (3033 Malott)

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Lab Director: **Dr. Roderick Black**, 2021 Malott Hall, rsblack@ku.edu, 785-864-3481

Lab TAs: **Galina Bulgakova**, gabulgakova@ku.edu
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Office hours (in 6083 Malott): Schedule TBD (posted on Blackboard)

Description: This integrated lecture and laboratory course provides an introduction to basic concepts related to *general, organic, and biological chemistry*. Suitable for students seeking an introductory course and for students who are majoring in health and allied health fields.

(This course is designed to fulfill the science requirement for non-science majors, and should not be taken by students who require more than one semester of chemistry. Students in the School of Engineering may not take this course for credit. CHEM 110 and CHEM 150 cannot both be taken for credit.)

KU Core: This course satisfies KU Core Goal 3 – Natural Sciences (GE3N)

Required Materials:

Textbook: *Introduction to General, Organic, & Biological Chemistry*, 13th Edition, by K. C. Timberlake
Mastering Chemistry (online homework) Access Card

Lab Manual: The laboratory syllabus, schedule, and protocols will be provided as pdf files on Blackboard. You are responsible for *printing* the correct protocol file, *bringing* it with you to lab, and *reading* the procedure prior to your lab session. During the lab you will fill out the required data sheets with your experimental results and calculations. These sheets along with a written conclusions paragraph will be handed in for credit. More details will be provided on Blackboard in the laboratory syllabus.

Goggles: Approved safety goggles are required at all times in the lab. The bookstore sells inexpensive goggles that meet State standards, but the Chemistry Club has much better goggles for sale at a reasonable price.

Calculator: You will need one of the following non-programmable calculators for quizzes and exams: **Texas Instruments 30Xa** or **Casio FX260**. *No other calculators will be allowed, and you will receive a zero on any quiz or exam for which you use any other calculator!*

- Website: The course website is available on Blackboard (<http://courseware.ku.edu>). All (lecture and laboratory) course announcements and materials will be available here.
- Lectures: Lecture attendance is required and will directly affect your performance in the course. You are expected to *read* the assigned sections of the textbook prior to lecture, *ask questions* during lecture and discussion sessions, and *review* the material afterwards. You will get most out of this class, and have the most fun, if you fully participate in all lecture, discussion, and laboratory activities. Don't hesitate to ask questions, after all, you probably are not the only one who wants to know the answer, so go ahead and ask!
- Discussions: The *optional* informal discussion sessions provide an opportunity to practice working problems and ask questions. Although the discussion sections are optional, your attendance is very strongly encouraged. The lecture TA will give you practice problems, help you solve them as needed, answer questions you have, and help you prepare for and exams.
- Recitations: The first 30-45 minutes of every lab period will include a recitation (problem solving) section during which you will be working through problems that will help you better understand the lecture material and prepare you for exams. Your participation is *required* as part of the required lab time.
- Grading: Your final grade in the course will be based on the total accumulation of points throughout the semester and assigned a letter grade (see below scale). If necessary, an appropriate curve will be applied at the end of the semester if deemed necessary by the instructor.

Learning Catalytics (<i>after 10% allowance</i>)	57 points
Class Participation (<i>after 10% allowance</i>)	57 points
Online Homework (<i>15 x 10 points each</i>)	150 points
Midterm Exams (<i>3 x 100 points each</i>)	300 points
Final Exam	150 points
Lab (<i>13 x 22 points each</i>)	286 points

Total: 1000 points

Scale: 1000-900 points = A
 899-800 points = B
 799-700 points = C
 699-600 points = D
 599 points and below = F

Learning Catalytics: Learning Catalytics (LC) will be used during most lectures throughout the semester. LC is a student engagement and assessment system that is accessible through Mastering Chemistry (online homework system) using a smart device (cell phone or tablet). *You are responsible for bringing your smart device with you to class every day.* The purpose of clicker questions is (1) to encourage you to actively participate in lectures and (2) to provide immediate feedback on the understanding of course concepts. Points will be awarded for participation alone (given a 10% allowance*) and will be normalized if necessary**. Please answer each question to the best of your ability even though you are not graded on the accuracy of your responses.

If the wireless connections are not sufficient enough to support this in Budig we will switch to iClickers. If you don't own one already for another class, we have ones to loan out for the semester.

*Class Participation
(group work):*

Periodically throughout the semester we will do in-class activities; worksheets, exercises, or problems, in small self-assembled groups. The purpose of these activities is for the instructor to assess student learning and for the student to be held accountable for keeping up with the reading and lecture material. Some of these activities are tentatively indicated in the syllabus with an asterisk but others will be unannounced in advance. *All* of the activities will have “participation” credit associated with them, points for completing the activity, as well as credit for the correct answers. The points* (see note below) for each of these activities is varied but will not be more than 10 points for any given activity**. Although you will be working in groups for these activities, you will be asked to turn in individual work for credit. Therefore, it is in your best interest to be an *active participant*. This means that you come to each class prepared – read your book, take notes in class, complete homework assignments and practice problems – and you work on (discuss) the activity with your peers.

*An allowance of 10% of the total number of points will be dropped in order to account for unavoidable absences and all other potential issues. No other allowances will be made under any circumstances. No bonus points will be given – i.e., the maximum points you can earn is 57 (after the allowance).

**Both LC and Class Participation points will be *normalized* if necessary. In other words, if we end up with less or more than 40 total points, a percentage will be used to determine your final score for this category. For example, if there were 100 possible points and you earned 86 of these points (or 86%), your score would be 86% of 57 points or $[0.86 \times 57 = 49 \text{ points}]$.

Online Homework:

Weekly homework assignments (10 points each) must be completed online via the Mastering Chemistry website. Working through the assigned problems is critical for understanding the material, and will prepare you for the exams. **Assignments will be due at midnight on Friday, except for exam weeks when the assignments will be due at midnight on Wednesday.** *You must complete each assignment by the deadline, no late assignments will be accepted under any circumstances.*

Exams:

Three midterm exams and a comprehensive final exam will be used to evaluate your understanding of the material. **Only approved calculators will be allowed (TI 30Xa or Casio FX260).** As listed in the course catalog, the midterm exams are scheduled for Thursday evenings. Please let me know immediately if you have a conflict with any of these times. **No make-up exams will be offered.** No changes to exam scores will be considered more than one week after they are returned.

Exam I:	Thursday, February 15	5:50-7:50 p.m.	120 Budig Hall
Exam II:	Thursday, March 15	5:50-7:50 p.m.	120 Budig Hall
Exam III:	Thursday, April 19	5:50-7:50 p.m.	120 Budig Hall
Final Exam:	Wednesday, May 9	7:30-10:00 a.m.	110 Budig Hall

Note: *Lecture will be cancelled on the Friday following each exam.*

Lab Grade:

Your attendance in lab is **required every week**. Students missing more than four lab sessions *for any reason* will not be allowed to pass the class. Each lab is worth a total of 22 points, and will consist of attendance/recitation participation (2 points), a graded pre-lab quiz (5 points), and the lab report (15 points). More information about the lab and lab report will be provided in the Lab syllabus found on Blackboard.

Lab Safety regulations are posted on Blackboard. In addition to reviewing these regulations carefully, you must pass an online safety quiz *before* coming to lab for the first time. You will not be allowed to participate (or receive points) in the lab until after you complete the safety quiz with a perfect score.

Conduct: **Academic misconduct will not be tolerated.** You are encouraged to discuss practice problems and in-class exercises, and study for exams with your classmates and in your groups. However, all graded exams must be *your own work*, of your own thinking and effort. In submitting your answers, you explicitly agree that, during the time of the exam, you have neither given nor received any assistance to or from another student or from any other source not authorized in advance by the instructor. **Cell phones are not permitted to be out during exams.** If you have an emergency, see the instructor before the exam begins.

All incidents will be reported, and students found in violation will be punished severely. A student who fails to observe these standards during an in-class exam will receive zero credit for that exam. Disruptions in the classroom constitute academic misconduct and will be dealt with accordingly.

Students should review the university policy on Academic conduct at: <http://policy.ku.edu/governance/USRR#art2sect6>

Guidelines for working in groups (in lecture and laboratory)

Why groups? Many of you will enter professions in which you will need to work with others. Your success relies on the ability to adapt to unique situations and interact with many types of people. I expect *all students* to help create a safe and supportive classroom environment where we all feel comfortable sharing ideas and contributing thoughts. Small group behavior will be respectful and professional. Those students not following these guidelines will be asked to leave and will receive a zero for the activity that day.

“Nothing new that is really interesting comes without collaboration” – James Watson

Course

Materials: Course materials prepared by the instructor, together with the content of all lectures and review sessions presented by the instructor are the property of the instructor. Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. On request, the instructor may grant permission for students to audio tape lectures, on the condition that these audio tapes are only used as a study aid by the individual making the recording. Unless explicit permission is obtained from the instructor, recordings of lectures and review sessions may not be modified and must not be transferred or transmitted to any other person, whether or not that individual is enrolled in the course.

Disabilities: The Academic Achievement and Access Center (AAAC) coordinates academic accommodations and services for all eligible KU students with disabilities. If you have a disability for which you wish to request accommodations and have not contacted the AAAC, please do so as soon as possible. They are located in 22 Strong Hall and can be reached at 785-864-4064 (V/TTY). Information about their services can be found at <http://www.access.ku.edu>. Please contact me privately regarding your needs in this course.

Religious

Observances: Should the examination schedule for this course conflict with your mandated religious observance, please contact me at the beginning of the semester so that we can schedule a make-up exam at a mutually acceptable time. In addition, students will not be penalized for absence

from regularly scheduled class activities which conflict with mandated religious observances. Students are responsible for initiating discussion with the instructor to reach a mutually acceptable solution.

Link to policy on test taking, student responsibility and religious observance:
<http://policy.ku.edu/governance/USRR#art1sect4>

Link to policy on attendance evaluation and mandated religious observance:
<http://policy.ku.edu/governance/USRR#art2sect1>

Concealed

Carry Policy: Individuals who choose to carry concealed handguns **are solely responsible to do so in a safe and secure manner in strict conformity with [state and federal laws](#) and [KU weapons policy](#)**. Safety measures outlined in the KU weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the constant control of the carrier.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

This course, specifically the lab, takes place in spaces that will require students to leave belongings such as backpacks and purses away and unattended for the duration of class time.

Instructors are allowed by Kansas Board of Regents policy, to require backpacks, purses and other bags be placed at the front of the room during exams, and as such those items will not be under the constant control of the individual.

Students who choose to carry a concealed handgun in a purse, backpack, or bag must review and plan each day accordingly, and are responsible for making alternate arrangements as necessary. The university does not provide appropriate secured storage for concealed handguns.

Individuals who violate the KU weapons policy may be asked to leave campus with the weapon and may face disciplinary action under the appropriate university code of conduct.

This syllabus is subject to change in the event of extenuating circumstances. Any changes will be announced in-class (when possible) and posted on Blackboard.