CHEM 130 General Chemistry I

Spring 2017; 5 credit hours
KU Core, Goal 1 Learning Outcome 2, Goal 3 Natural Sciences

General Information

Lecture: MWF 12:00-12:50 PM BUDIG 110

Instructor: Dr. Shuai Sun

Office Hours: Monday 3:00 – 6:00 PM, Wednesday 3:00 – 6:00 PM, Friday 1:00 – 3:00 PM
Appointments: http://chem130135.setmore.com
Office: 3012 Malott Hall

Lecture TA: Colby Barrett

Office Hour: Mondays and Wednesdays 1:30 – 2:30 pm, 6083 Malott Hall

Course E-mail: chem130ss@ku.edu
Emails sent to the instructor’s personal ID will not be addressed or replied to. Only the course email ID shall be used for all correspondences. Emails are to be used for administrative purposes only. Questions on course materials should be posted on Discussion Forum on Blackboard.

Textbook:
Custom, loose-leaf textbook with Mastering Chemistry access (available at bookstore) ISBN: 1323578641
Standalone access code can be purchased through the Pearson site

Notes and Handouts:
Blackboard, www.blackboard.ku.edu
Notes, handouts, and other course materials will be posted on Blackboard regularly.

Online Homework:
MasteringChemistry, www.masteringchemistry.com
Registration details will be announced on the first day of class and posted to Blackboard.
Grading

Four Exams  
4 × 100 = 400 points

Participation and Performance via Peer Instruction and Clicker  
80 points

Pre-lecture and Post-lecture Assignments via MasteringChemistry  
80 points

Reading Assignments  
Complete

Practice Homework  
Complete

Lab  
240 points

Total  
800 points

Challenge Questions  
Extra credit: 4 × 4 = 16 points

Concept Inventory  
Extra credit: 10 points for participation

Survey Participation  
Extra credit: 5 points × percentage

Grading Scale:
90% - 100% A
80% - 89% B
70% - 79% C
60% - 69% D
59% and below F

Notice:
1. We use normal rounding rules for this course. For example, 89.5% is rounded to 90%, and 89.4% is to 89.
2. Some Challenge Questions will be given after each chapter via handouts. An additional question will be given in the end of each exam for purpose of extra credit (4 points). The extra credit questions and the Challenge Questions given in handouts are similar in styles and difficulties.

3. Lab is up to 30% (240 points) of the total points in this course. Therefore, missing any labs without being excused could be detrimental to your grades. This often happens in the first few labs because students forgot to wear safety goggles, long pants and/or proper shoes.

4. Assignments and participations together are up to 20% (160 points) out of the total. Every semester there are students who end up with a grade on the fence. For example, students, who got 79.4% that leads to a C, found out they could have better grades only if they gained a couple of extra points from the assignments and/or participations.

5. We are going to have a couple of surveys throughout the semester, e.g., office hour survey, background survey, midterm feedback survey. The average of the participation rate will be computed in the end of the semester. For example, the class has 30% average participation rate, the extra credit will be 5 × 30% = 1.5 points.

Examinations

Exam Schedule:

Exam 1 08:00 -10:00 PM   FEB 9, 2017
Exam 2 08:00 -10:00 PM   MAR 9, 2017
Exam 3 08:00 -10:00 PM   APR 13, 2017
Exam 4 during finals week: May 8-12 (to be determined date/time)

Notes on Examinations:

1. All examination will be taken as scheduled. There are no make-up exams.
2. Excused absences consist of confirmed illness, unavoidable emergencies, etc. Excused absences are to be cleared in advanced if such clearance is possible. Legitimate reasons include only University related events, other conflicting classes or exams, medical crisis or religious holidays. Reasons that do not fall under the above mentioned categories will not be excused under any circumstances.
3. Absences that are not excused will results in exam scores of zero.
4. Topics to be covered in the hour examinations will be announced during the course of the semester. The examinations will test your knowledge of the material and your ability to use the information to solve problems.
5. Programmable calculators are not allowed. You should bring to each of the exams a basic scientific calculator. Use of programmable calculators during exams will result in a grade of zero.

6. Rooms for exams will be posted on Blackboard once they are assigned.

**Notes and Handouts**

Notes and handouts will be posted on Blackboard regularly. Students are encouraged to use these to preview/review the lectures and **prepare their exams**. It is very important that you develop **good note taking skills** and **attend lectures regularly** to be successful in this course. You are advised to bring a copy of the lecture slides to class with you.

**Participation and Performance**

**Peer Instruction**

In this semester, we will implement Peer Instruction in our class. Peer instruction is an interactive teaching and learning strategy that promotes student-centered learning in class. It involves:
(1) Students preparing to learn outside of class by doing pre-class readings and answering questions;
(2) In class, the instructor engages students by posing prepared conceptual questions that are based on student difficulties;
(3) Students reflect and discuss their understanding and problem-solving processes with their peers.

The Peer Instruction implementation process is illustrated as following:

**Clickers**

The student votes in the process of Peer Instruction will be fulfilled by students using iClicker.

Clicker scores will contribute 80 points to the total number of points possible (see above). Because the number of questions is unknown, your clicker score will be normalized at the end of the semester. The 5 sessions with the lowest percentage score will be dropped to handle various situations, like the bus running late, dead batteries, excused absences, etc.

Each question will be scored out of 3 points based on participation (2 points) and accuracy (1 point). There may be more than one question in a session (class period). **No written responses or responses from the i-Clicker GO mobile application will be accepted.**

Normalization of points will be carried out as follows: if you earned 78 of 120 points, your clicker total points at the end of the semester will be $80 \times \left(\frac{78}{120}\right) = 52.7$ This will be rounded up to 53, as per normal rounding rules.

**Clicker Registration:** Register your i-Clicker2 via your Blackboard account. Go to the CHEM 135 page in Blackboard. Click the link at the bottom of the left panel that says “i-Clicker2 registration.” In the new window, enter your i-Clicker2 registration number, found on the back of the clicker below the bar code, or found on the clicker window when the clicker is turned on. **Do NOT** register through iclicker.com, as this does not allow us to match your responses with your name in Blackboard. The deadline for registering your i-Clicker2 on Blackboard is January 17th, BEFORE the beginning of class.

Cheating: Bringing or using a fellow student’s i-Clicker to class is cheating and a violation of the University Honor Code. Anyone caught with a remote other than your own, or having votes in a class when not in attendance, will forfeit all clicker points and face additional disciplinary action.
Pre-lecture and Post-lecture Assignments

All assignments are given via MasteringChemistry (www.masteringchemistry.com). For registration, you will need the following:

1) Log into your Blackboard for the course

2) Click on Pearson Mastering Chemistry on the left menu

3) Please use your KU email address as your username. (e.g., x123y456@ku.edu)

4) Access Code: available at the bookstore with your textbook, or as standalone access code can be purchased through the Pearson site.

Pre-lecture assignments will be given before each lecture, and it usually includes one or two short questions in each assignment. The pre-lecture assignments are designed to deepen students’ understanding on the textbook materials. Students are recommended to complete the reading assignment before starting the pre-lecture assignment.

Post-lecture assignments will be given three times a week after each lecture with two or three questions. Students should use these questions to examine whether they have mastered the materials covered in the lecture.

Your total assignments marks will be normalized to 80 points at the end of the semester.

Reading Assignments

Reading assignments require student to read the corresponding chapters in the textbook and lecture notes before and after each lecture, i.e., three days a week.

Although Reading assignments are not for grades, students should not underestimate the importance of reading textbook. Students who complete the reading assignments regularly often have better in-class experiences. Since each class is limited to 50 minutes, we cannot cover all the details during the lecture time. Without reading the lecture materials beforehand and reviewing them afterwards, students may feel the lectures are too fast to follow or understand.

Text guides will be provided for each chapter in the textbook. These guides can assist you when you read the textbook and identify the important concepts and equations in each chapter.
**Practice Homework**

Additional problems will be given along with each chapter via handouts and/or MasteringChemistry. These questions are useful resources to **review the lecture materials** as well as **prepare the examinations**. These Practice Homework are not for grades, but it is **strongly recommended** that students complete the questions each week. Since these questions are not for grades, you can practice as many times as you wish.

**Course Helps**

A document named Course Helps will be posted on Blackboard, once all the information is collected. Where can you get helps for this course?

1. **Lecture’s office hours**

   A survey will be posted on Blackboard so that students can indicate the office hours they can attend. The office hours will be assigned based on the results of the survey.

   Attending office hours is found to be the most effective way for students to get clarifications and explanations to concepts and problems. Students who attend office hours regularly are often found with better performances.

2. **Lecture TA’s office hours**

3. **Discussion Forum**

   If you have questions about lecture materials, assignments, or general questions related to chemistry, you are encouraged to post your questions on Discussion Forum, which is available on Blackboard. In this way, other students have same questions can benefit from your post as well. Meanwhile, you are encouraged to answer other students’ questions in this forum, and have discussions with peers in this forum, so that we can build up an active online learning environment which eventually benefits all of us.

   All the questions will be checked by the instructor and lecture TA regularly. We will make sure all the questions are answered and finalized.

4. **Lab lectures’ office hours**

   It is primarily used for answering lab related questions, but the TAs can answer lecture questions as well. Notice besides the office hours of your own lab TA, you can attend any other lab TAs’ office hours as well.
5. PLUS Chemistry (Peer Led Undergraduate Supplements):

Peer led supplemental discussion sessions are coupled with interactive exercises that reinforce lecture materials in a small group setting. These sessions are specifically designed to bridge gaps between teaching and learning. PLUS is open to all students enrolled in the course, and those who regularly attend this free academic support activity perform better than the class average. Please come to any discussion section that fits your schedule. The sessions are free!


6. Peer Study Group

If you are interested in leading a study group, please contact the course instructor. All the information on peer study group will be collected and posted on the Course Helps document.

7. Tutor

The tutor list for Spring 2017 will be posted once it is available. Notice that, in general, tutoring is not free, and the qualities of tutors differ person by person. Tutors can help you to study the course materials, but cannot replace your own efforts on studying. In other words, having a tutor is not always equivalent to having good grades.

8. Academic Achievement and Access Center

The Academic Achievement and Access Center (AAAC) is another on-campus resource available to you. They provide a number of services, including course-specific tutoring, supplemental instruction, and academic consultations. The website is www.achievement.ku.edu, or you can phone (785) 864-4064.
Lab Director: Dr. Roderick Black, 2021 Malott, 864-3481, rsblack@ku.edu

Laboratory:

Learning the proper laboratory skills is essential to being a successful chemist. You need to go to each lab prepared to do the assigned experiment. Read the experiment before you go to the laboratory and make sure you have some idea of what you need to do. Your laboratory Teaching Assistant will help you throughout each experiment. See separate website sheet for additional scheduling information. Students are required to pass an online safety examination before being allowed to participate in the laboratory experiments. More details will be given in class.

Laboratory Safety:

Follow the link to Safety Regulations for Chemistry Lab on the Chemistry Lab website, and review these Regulations often. Chemistry Department-approved full-coverage goggles must be worn at all times. If a student is found not wearing goggles at any time while laboratory work is being conducted anywhere in the room, this student will receive a warning or a grade penalty, and may be asked to leave the room. Laboratory students must wear long pants. It is not acceptable to wear shorts of any kind, Capri pants or intermediate-length pants of any kind, or skirts. Shoes must cover the entire foot. Open-toed shoes, open-heeled shoes, sandals, or shoes containing holes are not acceptable. (If a student's attire fails to meet these guidelines because of religious or cultural requirements, the student must contact the instructor in advance of the lab period.)

Useful University Policies and Student Conducts

Withdrawal Policy:

Students adding classes or increasing credits will need the signature of the instructor on the Schedule Change Form. Students should bring their completed forms to Enrollment & Financial Aid Services, 121 Strong Hall or the KU Visitor Center.

Recording of Lectures:

Video and audio recording of lectures and review sessions without the consent of the instructor is prohibited. On request, the instructor will usually 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 student 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 person is enrolled in the course.
Commercial Note Taking:

Pursuant to the University of Kansas’ Policy on Commercial Note-Taking Ventures, commercial note-taking is not permitted in CHEM 130. Lecture notes and course materials may be taken for personal use, for the purpose of mastering the course material, and may not be sold to any person or entity in any form. Any student engaged in or contributing to the commercial exchange of notes or course materials will be subject to discipline, including academic misconduct charges, in accordance with University policy. Please note: note-taking provided by a student volunteer for a student with a disability, as a reasonable accommodation under the ADA, is not the same as commercial note-taking and is not covered under this policy.

Notes on Academic Misconduct:

It is expected at the University of Kansas that students adhere to high standards of personal and scientific integrity. In scientific endeavors the same is also expected. Science cannot work without honest reporting of data and the proper attribution of authorship. The following statements are given as reminders of the expectations for this class and the labs:

"Cheating, or the appearance thereof, including giving or receiving help on an exam, looking at another student’s paper while taking an exam, falsifying exam papers, using unauthorized materials, notes, crib sheets, or the equivalent, etc., faking laboratory data, reporting other people’s results as your own, etc., are not acceptable and will be dealt with in accordance with published University regulations."

“Students who engage in disruptive behavior, including persistent refusal to observe boundaries defined by the instructor regarding inappropriate talking, discussions, and questions in the classroom or laboratory may be subject to discipline for non-academic misconduct for disruption of teaching or academic misconduct, as defined in the Code of Student Rights and Responsibilities (CSRR).”

It is perfectly OK - and strongly to be encouraged - to study and work problems with others outside of class and to discuss lab procedures, results and interpretations with others, both during and outside of lab. It is essential, however, that the data you report be yours and as you observed it and that all the write-ups are in your own words.