Course syllabus for:
Chem. 122-9: General Chemistry I, Cohort and Honors Section
Fall 2023

Lecture Time and Place: TR 9:45 AM – 11:00 AM, Buehler 475

Instructor: Prof. David Jenkins
Office: Buehler 409, Phone: 974-8591, Email: dmj9@utk.edu

TAs: Alexandria Bone (abone1@vols.utk.edu), Vernon Stafford (vstaffo2@vols.utk.edu)

BASIC COURSE INFORMATION

Course Description: The first course in a two-semester sequence covering fundamental principles of chemistry designed for students pursuing chemistry majors. Topics covered include atomic structure and bonding, the periodic table, molecular structure, spectroscopy, chemical reactions and stoichiometry, introduction to organic compounds and reactions, basics of thermochemistry, and behavior of gases.

Learning Objectives: 1) Learn the terminology (language) of chemistry, including chemical symbols, chemical formulas, nomenclature, and chemical equations. 2) Learn the basics of the properties of matter, measurement, and uncertainty. 3) Gain an understanding of atomic structure and the formation of molecules, ions, and compounds. 4) Understand the stoichiometry in chemical equations and be able to apply it to quantitatively predict and analyze the chemical reactions. 5) Obtain a beginning understanding of electronic structure of atoms, the organization and information conveyed by the periodic table of the elements. 6) Acquire an introduction to basic concepts of chemical bonding and modern bonding theories, which includes being able to predict shapes of small molecules and ions. 7) Obtain knowledge of the basics of thermochemistry. 8) Learn the fundamentals of gases. 9) Develop analytic reasoning and mathematical skills for solving scientific problems.


COMMUNICATION

Canvas: Class announcements, lecture notes, grades, and other course documents will be posted on Canvas (utk.instructure.com). Often, messages pertinent to class and exams will be sent via email from Canvas. Students are responsible for monitoring their UTK e-mail account and the course site.

Email Policy: The purpose of email is to communicate efficiently and effectively for short missives. Therefore, it is also not an effective medium for obtaining help with complex homework problems. Likewise, please do not expect an immediate response, particularly on weekends,
evenings, or holidays. Given the massive amount of email I receive, you must include “CHEM 122” in the subject line. Emails to request a meeting outside of office hours should explain the nature of the request (why do you want to meet?) and at least three specific options for meeting times. Emails concerning policies described in this syllabus may be returned with a simple note: “Please read the syllabus”. Finally, please include an appropriate form of address, such as Dr. Jenkins or Prof. Jenkins.

COURSE ASSESSMENT AND EVALUATION METHODS

Graded Assignments:
Online Homework (OWLv2) 15% Due throughout semester
Exam 1 15% September 21st
Exam 2 15% October 19th
Exam 3 15% November 16th
Final Exam (cumulative) 25% December 11th (1:00 PM – 3:15 PM)
Participation 15% Throughout all classes

Grading Scale:
Final course letter grades will be computed using an instructor-specified scale that will be determined at the end of the semester, but is tentatively given below.

90 and above A
85 – 90 A-
80 – 85 B+
75 – 80 B
70 – 75 B-
65 – 70 C+
60 – 65 C (minimum grade for passing)
55 – 60 C-
50 – 55 D+
45 – 50 D
40 – 45 D-
40 and below F

Online Homework: We will be using OWLv2 electronic homework system and you will be able to log in to the system once you are signed up for the course. You will log in to OWLv2 through the course Canvas page in the ‘Access Homework and e-Book’ module. No credit will be given for assignments submitted after the due date. Once you get access to the online homework course, the following assignments are due soon after the semester begins:
(1) Four short introduction assignment
   a. Intro: Working with OWL
   b. Intro: Mastery Assignments
   c. Intro: Non-Mastery Assignments and Answering Questions
   d. Intro: ChemDoodle Sketcher and ChemDoodle 3D
(2) One Math review assignment
(3) One Quick Prep assignment: Students will take an adaptive test which will generate a study plan based on the student’s test results.
These assignments will introduce you to OWLv2 system and prepare you for the course. Try to finish these assignments as early as possible so you can focus on the course material we will cover.

You will have four types of homework assignments for each chapter. Two are graded and the other two are for practice. They are described in the following tables:

<table>
<thead>
<tr>
<th>Assignment Type</th>
<th>Grade</th>
<th>Given Attempts</th>
<th>Description</th>
<th>Best Time to Do the Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery</td>
<td>Graded</td>
<td>6</td>
<td>Single concept questions, comes with group (3 questions per group). Need to answer 2 out of 3 correctly to get credit.</td>
<td>After the concept is covered in each lecture. Don’t wait until the chapter is finished since many concepts are covered.</td>
</tr>
<tr>
<td>EOC (End of Chapter)</td>
<td>Graded</td>
<td>6</td>
<td>Multi-concept questions and applications</td>
<td>After Mastery assignments and after the chapter is finished.</td>
</tr>
<tr>
<td>Multimedia Activity</td>
<td>Not graded</td>
<td></td>
<td>Short videos or simulations</td>
<td>Before lecture, get some ideas what will be covered in lecture</td>
</tr>
<tr>
<td>Adaptive Study Plan</td>
<td>Not graded</td>
<td></td>
<td>Test and study plan based on your test result</td>
<td>After chapter is finished, preparation for exams</td>
</tr>
</tbody>
</table>

**Exams: Exams will be in class.** Please arrive on time since you will have 75 minutes for these exams. The three prelim exams will be given on the selected days (see exam schedule below) during the lecture period. The final exam is comprehensive and will be given during the assigned period during final exam week. The use of PDA devices, laptop computers, cell phones, graphing calculators, or any other electronic device that connects to the wireless network is prohibited during exams. Always bring your student ID card, non-programmable calculator (such as TI-30), and writing utensil to all exams.

If an exam is missed due to illness or personal emergency, I must be contacted within 24 hours of the missed exam and provided with a written, signed, verifiable excuse. For exams 1-3, an initial grade of zero (0) will be entered, and if your excuse is approved, your exam grade will be replaced by the grade you receive on the final exam. If the excuse is not accepted, you will be assigned a zero (0) on that exam. If you do not take the final exam or miss two (2) or more semester exams, which are excused then you will be assigned a grade of “I” (incomplete) for the course.
Participation: Student participation allows for a livelier classroom experience and will be incorporated into every lecture. Students will be combined in teams for in class participation points. Additional details will be given on the first day of class. The combined 15% of the grade for the class will be divided into three components.

Introduction to Chemical Literature Presentation (CLP) 4%
Kahoot 6% (Online questions given as a competition during class)
In-class Oral Questions from Instructor 5%

ADDITIONAL ASSISTANCE

Faculty Office Hours: 10:15 – 11:15 AM (M) and 11:10 – 12:00 PM (R) in Buehler 409, or by appointment. Please send me an email to schedule an appointment.

TA Office Hours: Alexandria Bone, 2:00 – 3:00 PM (W) in Buehler 454; Vernon Stafford, 1:00 – 2:00 PM (T) in Buehler 405. TAs will have additional office hours on exam weeks.

Chemistry Tutorial Center: It is free and staffed by Graduate teaching assistants from Monday to Friday during 9 AM to 4 PM (Buehler 513 or Strong Hall 303). Highly recommended.

Technical issues with OWLv2: If you have any technical issues with OWLv2, email Ms. Jennifer McCown: Jennifer.mccown@cengage.com. There will virtual office hours for the first two weeks of class and you should use these instead of email. These dates and times will be posted on Canvas. Alexandria Bone can also assist once you are registered.

ADDITIONAL POLICIES

Honors by Contract: [Please note that this is contingent on approval by the Honors Program. I am awaiting information from them]. If you are an Honors student who wishes to pursue Honors by Contract, then you need to discuss this with the instructor in the first two weeks of class (deadline Sept. 5th). We will jointly agree on an assignment that will fulfill the Honors requirement.

Student Conduct Policies: Cell phones are not to be used in the class (ringer should be silenced), except for use with Kahoot in class questions.

Disability Statement: The University of Tennessee, Knoxville, is committed to providing an inclusive learning environment for all students. If you anticipate or experience a barrier in this course due to a chronic health condition, a learning, hearing, neurological, mental health, vision, physical, or other kind of disability, or a temporary injury, you are encouraged to contact Student Disability Services (SDS) at 865-974-6087 or sds@utk.edu. If you are already registered with SDS, please contact your instructor to discuss implementing accommodations included in your course access letter.

Inclement Weather Policy for Exams: If UTK is officially closed due to weather at the time of an exam, the exam will be given at the next lecture period. If UTK is open, but weather keeps you from attending, notify me by the start of that class period to explain your absence.
**Exam Re-grade Policy:** Mistakes of addition will be corrected anytime. For the re-grading of an answer's content, the exam re-grade request must be submitted within five school days of receiving the graded exam. To request a regrade, you will need to staple the regrade form (found online) with your name and a brief description of the issue. Please note that with re-grades, I reserve the right to re-grade the entire exam.

**Academic Dishonesty:** This course has a zero tolerance policy on cheating. Individual cases will be prosecuted to the fullest extent possible. I reserve the right to assign a grade of zero or dismiss a student from class for actions involving violations of the following University of Tennessee Honor Code. See [http://judicialaffairs.utk.edu](http://judicialaffairs.utk.edu) for more information.

**Illness:** If you are ill, you should not attend class. You should get notes from one of the other students in your class. If you miss an exam, the other two exams will count for that exam score (as noted above).

**Changes to syllabus:** The instructor reserves the right to make changes in the syllabus when necessary to meet learning objectives, to compensate for missed classes, or for similar reasons. Any changes made will be announced during class and then posted on Canvas.
Lecture Schedule (in order of presentation):

1. Introduction to class – August 24th
2. Chapter “R” – August 29th
3. Chapter 1 and demo – August 31st
4. Chapter 1 – September 5th
5. Chapter 2 – September 7th
6. Chapter 2 and CLP – September 12th
7. Chapter 2 and demo (Exam 1 material ends here) – September 14th
8. Chapter 3 and CLP – September 19th
9. Exam 1 in class – September 21st
10. Chapter 3 and CLP – September 26th
11. Chapter 3 and demo – September 28th
12. Chapter 4 and CLP – October 3rd
13. Chapter 4 – October 5th
14. No Class, Fall Break – October 10th
15. Chapter 4 (Exam 2 material ends here) – October 12th
16. Chapter 5 – October 17th
17. Exam 2 in class – October 19th
18. Chapter 5 and CLP – October 24th
19. Chapter 5 and demo – October 26th
20. Chapter 6 and CLP – October 31st
21. Chapter 6 – November 2nd
22. Chapter 6 and CLP (Exam 3 material ends here) – November 7th
23. Chapter 7 and demo – November 9th
24. Chapter 7 and CLP – November 14th
25. Exam 3 in class – November 16th
26. Chapter 7 – November 21st
27. No Class, Thanksgiving – November 23rd
28. Chapter 8 – November 28th
29. Chapter 8 and demo – November 30th
30. Chapter 8 and review – December 5th
31. Final Exam – Monday, December 11th (1:00 PM – 3:15 PM)