



EAST TENNESSEE STATE
UNIVERSITY

College of Arts and Sciences

Department of Chemistry

CHEM 1120
General Chemistry II

Syllabus

Contact Information

Instructor: Dr. Ray Mohseni

Email: mohseni@etsu.edu

Phone: 423-439-6913

Office: Brown 467

Instructor Availability

Tuesday and Wednesday (1-2 pm), or by appointment. Your email will be replied within 24 hrs.

Meetings and Location

Classroom: Brown 261

Class Meeting Schedule: Tuesdays and Thursdays 8:15-9:35 am

Course Information

Credit Hours

4

Course Description and Purpose

The course describes the general concepts and fundamental principles of chemistry. In this course, we discuss the chemical structures, chemical bonding, physical properties of solutions, and rate of the reactions, the chemical equilibrium, the thermodynamic, electrochemistry, and the laws that govern them.

Course Goals

Problem solving is an important part of chemistry. By solving problems and understanding the concept, you become involved with the subject. You will learn the problem solving strategy.

Course Objectives

The course is designed to teach student how to approach and solve problems related to the chemical phenomena by learning both concept and math involved.

Major Topics

1. Chemical bonding
2. Molecular geometry
3. Hybridization of atoms in simple inorganic and organic compounds
4. Correlation between vapor pressure of a liquid and temperature
5. Concentration units
6. Boiling point elevation and freezing point depression
7. Intermolecular and intramolecular forces, and different types of solids
8. Rate of reaction and factors affecting it. In addition, we will discuss the mechanisms of a few reactions.
9. Equilibrium concept for both heterogeneous and homogeneous mixtures
10. Acid-base strength, and determination of pH of each solution
11. Acid-base titration
12. Solubility rules
13. Thermodynamic laws
14. Discussion on electrochemistry and difference between voltaic cells and electrolysis

Course Requirements

Textbooks and Readings

Lecture:

Connect Stand Alone 2 year Access Card:

Net Price to the bookstore: \$130

Title - CHANG CNCT 2Y AC CHEM 12 2016

ISBN: 9781260297102

Since portion of the course grade is based on the homework on Connect site, you must make sure you get the access code when purchasing your textbook.

The url for Connect is: <https://connect.mheducation.com/class/r-mohseni-chem-1120---spring-2020>

Laboratory:

“Experiments in General Chemistry”, 7th Edition, Mohseni, Wardeska, Huang, and Kopp (Required)

Technical Requirements

-You could login the “Desired to Learn” site for the lecture notes (when available), or announcements. You go to <http://elearn.etsu.edu>, login, and type-in your username and password. It is the students’ responsibility to check the D2L site periodically.

-You have to sign up for Connect online. You have an access code to register yourself to the class. **When you purchase your textbook, make sure you ask for the access code to Connect.** Homework is given online. Therefore, you have to make sure you feel comfortable navigating the site.

Course Policies and Expectations

Classroom and Communication Policies

Email Communication

The ETSU email policy requires all faculty communication with students be conducted via the official ETSU email account. Therefore, the email sent out other than ETSU email system will not be replied back.

Attendance and Participation

You have to be respectful to the class. You must not use the cell phone while the class is in session. Please turn off your cell phone when attending the class. Programmable calculators are not allowed for this course.

Study has shown there is a direct correlation between class attendance and success in the course. You are expected to attend every lecture. You should arrive before the instructor starts the lecture. If you are late by 5 min, there is a chance, you could be considered as absent. The instructor takes random class attendance. If you attend the class at least 80% of the time that the instructor takes the attendance, your lowest test grade will be dropped.

Assignments and Submission Guidelines

There will be four exams and one ACS-standardized final exam. The lowest grade of the four regular exams will be dropped if the student attends lecture **at least 80% of the time**.

Exams 1-4 are given at the ETSU Testing Center. You have to take the online exam in one sitting. You have to take a pen/pencil, a nonprogrammable calculator, and your valid student ID. If your ETSU ID is faded, you have to replace it with a new one to take the test. Each test will be available only for two days. Since there is a limited computer station is available, you would have to make an appointment with the center. You will be provided with a copy of the Periodic Table, and a piece of scratch paper. When you finished with the test, you must turn in the Periodic Table and the scratch paper to the proctor.

The final exam is **NOT** an online test. You have to take it in the classroom.

-There will be no extra credit for this course. None of the tests will be curved. Only the course grade will be curved.

Testing Policy

You have to have a non-programmable calculator to take the tests. We will provide you with a copy of the Periodic Table.

Late and Missing Submission Policy

If you miss one exam (regardless of your excuse), that will be the exam that is dropped. If **two** regular exams are missed, **or** the final exam is missed, the grade "F" will be reported for the course.

Late homework could be subject up to 50% point deduction.

If you are missing an experiment, you have one week to make it up in another lab section. A grade of zero will be reported if the experiment is not made up within a week. During lab midterm and lab final, NO makeup lab is scheduled.

Grading Policy

Homework assignments are worth **8%**.

No hats, sun glasses, audio or video devices are allowed during the exam time.

Test 1 17%

Test 2	17%
Test 3	17%
Test 4	17%
Final Exam	16%
Lab Performance	25%

The lab grade will be based on two written lab exams (30% each), and the lab work (40%). You must perform all the assigned experiments so a course grade is reported for you. A common grade will be given for both lecture and the lab. Copying the prelab, data, and/or exercises from one another is considered cheating. The lab instructors will give a zero for that particular experiment if caught.

The overall grade in the course will be based on 75% lecture and 25% laboratory performance.

Test and course grades will be assigned as follows:

A 91-100%	B+ 82-85%	C+ 70-73%	D+ 58-61%
A- 86-90%	B 78-81%	C 66-69%	D 54-57%
	B- 74-77%	C- 62-65%	F <54%

Borderline grades will be assigned based on the overall performance.

Course Schedule

	<u>Date</u>	<u>Percent</u>	<u>Chapters (tentative)</u>
Test 1	February 11, 12	17%	10-11

Test 2	March 11, 12	17%	12-13
Test 3	April 6	17%	14-15
Test 4	April 21	17%	16-17
Final Exam	Tuesday, May 5 (1:20-3:20 pm)	16%	1-18

Student Services and Technical Resources

Student Services

The [ETSU Services webpage](#) includes a comprehensive list of services available to all ETSU students.

Academic Accommodations for Students with Disabilities

It is the policy of ETSU to accommodate students with disabilities, pursuant to federal law, state law and the University's commitment to equal educational access. Any student with a disability who needs accommodations, for example arrangement for examinations or seating placement, should inform the instructor at the beginning of the course. Faculty accommodation forms are provided to students through Disability Services in the D.P. Culp Center, Room 326, telephone 423-439-8346. [Visit the Disability Services webpage for more information.](#)

Technical Resources

Help Desk

The Information Technology Services (ITS) Help Desk is the best resource for most technical problems. Find answers to common questions on the [Help Desk website](#), call, email, or stop in to see them on the first floor of the Sherrod Library. Phone: 423-439-4648 Email: itshelp@etsu.edu

Desire2Learn (D2L) Online Help

Many answers to D2L related questions can be found on the [D2L Help Student Home](#). If you are still having trouble finding what you need, contact the Help Desk.

Microsoft Office Software

Microsoft Office productivity applications, including Word, PowerPoint, Excel, OneNote, and more, are available free for students through the University's Office 365 campus agreement. For instructions on how to obtain the software, see the [Office 365 page of the ITS Help Desk website](#).

Turnitin Plagiarism Detection

Turnitin is a plagiarism detection service available to students and faculty at ETSU. This tool compares student written work against a comprehensive database of other work as well as various internet sources. Faculty may employ this service for some or all written assignments, in order to help students learn to cite sources accurately and to ensure academic integrity. Learn more on the [Turnitin home page](#).

ETSU Technical Resources

Many other technical resources can be found on the [Online Help webpage](#).

University Information

Syllabus Attachment

The [ETSU syllabus attachment](#) includes important material such as permits and overrides, advisement, hours, dates and other ETSU information.

ETSU Catalogs

[Current Undergraduate Catalog](#)

[Current Graduate Catalog](#)

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