

# 2022-FA-CHM2045-01: General Chemistry I

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**Instructor:** Mark Taylor

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**E-mail:** Canvas Inbox is preferred

## **Philosophy:**

Chemistry is a challenging subject that many students fail at before they actually start the class. They find the idea of an advanced science scary, unnecessary, time consuming, or any other excuse to give up before they begin. My job is to keep you interested and involved. Anyone can learn this topic but my goal is that you learn it well. There is a rule of thumb that instructors like to use that states that for every credit hour a course offers, you should study three. Most students will find themselves studying at least 12 hours per week. PLAN FOR IT! Don't get behind and ASK QUESTIONS!

## **Class Times:**

Monday & Wednesday 9:30am-10:45am Room 2-114

## **Office Hours:**

Click on Canvas Calendar and the "Find Appointment" or come to my office (2-218A)

Monday: 2:00pm-4:00pm

Tuesday: 9:30am-10:30am & 1:00pm-4:00pm

Wednesday: 2:00pm-4:00pm

Thursday: 9:30am-10:30am & 3:30pm-4:30pm

Friday: 9:30am-10:30am & 12:30pm-1:30pm

Extended Emergency Closure. "For emergency campus closings (natural disasters, etc.) call 352-291-4499 or 800-831-9244 or check our website [www.CF.edu](http://www.CF.edu)."

## **Prerequisite:**

CHM1025 or equivalent with MAC1105, or higher with a grade of C or better.

## **Course Description:**

This course may include an expanded review of CHM1025. The course covers atomic structure, bonding, formulas, nomenclature, reactions, stoichiometry, gas, solid, and liquid states.

## Textbook:

"Open-Stax Chemistry" Content Leaders: Flowers, Theopold, & Langley, Rice University, Houston, Texas.

ISBN 978-1-947172-62-3.

Online version available.

## Canvas:

All course materials will be available on Canvas.

## Calculator:

A simple non-programmable scientific calculator with capabilities for square roots, logarithms, and exponential operations is required. An online version will be available during testing.

## Course Agenda

[Chapter 1](#): Essential Ideas

[Chapter 2](#): Atoms, Molecules, and Ions

Test 1

[Chapter 3](#): Composition of Substances and Solutions

[Chapter 4](#): Stoichiometry of Chemical Reactions

Test 2

[Chapter 5](#): Thermochemistry

[Chapter 6](#): Electronic Structure and Periodic Properties of Elements

Test 3

[Chapter 7](#): Chemical Bonding and Molecular Geometry

[Chapter 8](#): Advanced Theories of Covalent Bonding

Test 4

[Chapter 9](#): Gases

[Chapter 10](#): Liquids and Solids

Test 5

Final

## **Tests (60% of grade):**

There will be five tests during this semester. The lowest test score will be dropped. For one test missed, there are no questions asked and no make-up test. This applies to ALL reasons for missing tests. Any other tests missed will be averaged as zeros. Tests will be completed during class time. Scantrons are required.

**Periodic Table for the tests** ↓

([https://cf.instructure.com/courses/1751580/files/138060712/download?download\\_frd=1](https://cf.instructure.com/courses/1751580/files/138060712/download?download_frd=1))

## **Final (10% of grade):**

There is a comprehensive final for this course. The final makes up 10% of your grade. Absolutely no makeups will be possible for the final. The test will be similar to the tests above but will cover the entire semester and will have a two hour time limit. Scantron is required.

## **Practice Tests:**

For each test there will be practice tests available. These tests contain previously used questions and are generally longer than the actual test. These will be online under Quizzes and will be open to taking them multiple times.

## **Worksheets (30% of grade):**

There will be a number of worksheets throughout the semester consisting of take-home assignments. Assignments are due as posted on the worksheets and will lose 5% of their value each day after that point. The worksheets will be graded utilizing the rubric attached to the assignment. These are to be turned in via Canvas by clicking on the assignments themselves.

## **Lectures:**

Lectures will provide you with a general list of topics and goals and will be provided via YouTube. Some areas will be covered in more detail than others but it is your responsibility to know and understand them all. The test will be made up from questions coming from both the lecture and the textbook. I will provide lecture notes via CANVAS but you should add your own thought notes. The textbook has many questions that you should consider as good practice for the tests. Click on the appropriate chapter above for links to the lecture notes and YouTube videos.

## **Disputing Grades:**

If you feel that an error was made in grading any of your assignments, labs, tests, etc., you have one week from the time the graded work was handed back to you to dispute your grade. After one week all grades are final.

## **Incomplete:**

Incomplete will be given only when a student, who has been successfully participating in class, has an emergency at the end of a semester that prevents that student from completing the course.

## Returned Assignments:

Worksheets and Tests will be returned at the beginning of the lecture immediately following a test. If you are unable to pick up your assignment you may do so during office hours. Any work left with the instructor after Finals Week will be shredded before disposal. If you desire to keep your assignments but cannot pick them up prior to that date please contact the instructor.

## Right to Change Syllabus:

If necessary, some components of this syllabus (such as exam dates, chapters/topics covered, etc.) may change. However, any such changes will be announced to students in class. The student is responsible for any such announced changes.

## Privacy Rights:

The college adheres to all federal and state laws and rules pertaining to the privacy rights of students. Grades will not be posted nor will a student's grades be discussed with anyone other than the student, unless directed to do so by a college official or administrator or if given written permission by the student. Due to recent privacy laws, I cannot give out grade information over the telephone.




## Learning Outcomes:

Learning Outcomes










Learning Outcome	Homework	Tests	Classroom Activity
<b>Quantitative and Analytical Reasoning: The student will understand and apply mathematical and scientific principles and methods.</b>			
<b>Perform accurate computations using order of</b>	X	X	X

<b>operations with and without technology</b>			
<b>Identify and organize relevant information and complete the solution of an applied problem</b>	X	X	X
<b>Interpret and communicate understanding of visual representations of data</b>	X	X	X
<b>Demonstrate mathematical number sense and unit sense</b>	X	X	X

## Course Summary:

Date	Details	Due
Mon Aug 15, 2022	 <b>Office Hours</b> ( <a href="https://cf.instructure.com/appointment_groups/11771">https://cf.instructure.com/appointment_groups/11771</a> )	2pm to 4pm
Tue Aug 16, 2022	 <b>Office Hours</b> ( <a href="https://cf.instructure.com/appointment_groups/11775">https://cf.instructure.com/appointment_groups/11775</a> )	9:30am to Aug 31 at 4pm
Wed Aug 17, 2022	 <b>WS01</b> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527217">https://cf.instructure.com/courses/1751580/assignments/12527217</a> )	due by 11:59pm
Wed Aug 24, 2022	 <b>WS02</b> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527219">https://cf.instructure.com/courses/1751580/assignments/12527219</a> )	due by 11:59pm
Mon Aug 29, 2022	 <b>Test 1</b> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527207">https://cf.instructure.com/courses/1751580/assignments/12527207</a> )	due by 10:45am
Mon Sep 5, 2022	 <b>No Classes</b> ( <a href="https://cf.instructure.com/calendar?event_id=2481179&amp;include_contexts=course_1751580">https://cf.instructure.com/calendar?event_id=2481179&amp;include_contexts=course_1751580</a> )	12am

Date	Details	Due
Wed Sep 7, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527221">WS03</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527221">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527221">https://cf.instructure.com/courses/1751580/assignments/12527221</a>)</a>	due by 11:59pm
Mon Sep 19, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527223">WS04</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527223">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527223">https://cf.instructure.com/courses/1751580/assignments/12527223</a>)</a>	due by 11:59pm
Wed Sep 21, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527209">Test 2</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527209">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527209">https://cf.instructure.com/courses/1751580/assignments/12527209</a>)</a>	due by 10:45am
Mon Oct 3, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527225">WS05</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527225">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527225">https://cf.instructure.com/courses/1751580/assignments/12527225</a>)</a>	due by 11:59pm
Wed Oct 5, 2022	 <a href="https://cf.instructure.com/calendar?event_id=2481173&amp;include_contexts=course_1751580">Online Class</a> <a href="https://cf.instructure.com/calendar?event_id=2481173&amp;include_contexts=course_1751580">(<a href="https://cf.instructure.com/calendar?event_id=2481173&amp;include_contexts=course_1751580">https://cf.instructure.com/calendar?event_id=2481173&amp;include_contexts=course_1751580</a>)</a>	12am
Mon Oct 10, 2022	 <a href="https://cf.instructure.com/calendar?event_id=2481175&amp;include_contexts=course_1751580">Online Class</a> <a href="https://cf.instructure.com/calendar?event_id=2481175&amp;include_contexts=course_1751580">(<a href="https://cf.instructure.com/calendar?event_id=2481175&amp;include_contexts=course_1751580">https://cf.instructure.com/calendar?event_id=2481175&amp;include_contexts=course_1751580</a>)</a>	12am
Wed Oct 12, 2022	 <a href="https://cf.instructure.com/calendar?event_id=2481177&amp;include_contexts=course_1751580">Online Class</a> <a href="https://cf.instructure.com/calendar?event_id=2481177&amp;include_contexts=course_1751580">(<a href="https://cf.instructure.com/calendar?event_id=2481177&amp;include_contexts=course_1751580">https://cf.instructure.com/calendar?event_id=2481177&amp;include_contexts=course_1751580</a>)</a>	12am
Mon Oct 17, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527227">WS06</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527227">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527227">https://cf.instructure.com/courses/1751580/assignments/12527227</a>)</a>	due by 11:59pm
Wed Oct 19, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527211">Test 3</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527211">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527211">https://cf.instructure.com/courses/1751580/assignments/12527211</a>)</a>	due by 10:45am
Wed Oct 26, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527229">WS07</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527229">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527229">https://cf.instructure.com/courses/1751580/assignments/12527229</a>)</a>	due by 11:59pm
Wed Nov 2, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527231">WS08</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527231">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527231">https://cf.instructure.com/courses/1751580/assignments/12527231</a>)</a>	due by 11:59pm
Mon Nov 7, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527213">Test 4</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527213">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527213">https://cf.instructure.com/courses/1751580/assignments/12527213</a>)</a>	due by 10:45am
Mon Nov 14, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527233">WS09</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527233">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527233">https://cf.instructure.com/courses/1751580/assignments/12527233</a>)</a>	due by 11:59pm
Mon Nov 21, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527235">WS10</a> <a href="https://cf.instructure.com/courses/1751580/assignments/12527235">(<a href="https://cf.instructure.com/courses/1751580/assignments/12527235">https://cf.instructure.com/courses/1751580/assignments/12527235</a>)</a>	due by 11:59pm
Wed Nov 23, 2022	 <a href="https://cf.instructure.com/calendar?event_id=2481171&amp;include_contexts=course_1751580">No Classes</a> <a href="https://cf.instructure.com/calendar?event_id=2481171&amp;include_contexts=course_1751580">(<a href="https://cf.instructure.com/calendar?event_id=2481171&amp;include_contexts=course_1751580">https://cf.instructure.com/calendar?event_id=2481171&amp;include_contexts=course_1751580</a>)</a>	11pm

Date	Details	Due
Mon Nov 28, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527215">Test 5</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527215">https://cf.instructure.com/courses/1751580/assignments/12527215</a> )	due by 10:45am
Wed Dec 7, 2022	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527205">Final</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527205">https://cf.instructure.com/courses/1751580/assignments/12527205</a> )	due by 10:45am
	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527161">Final</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527161">https://cf.instructure.com/courses/1751580/assignments/12527161</a> )	
	 <a href="https://cf.instructure.com/calendar?event_id=2477653&amp;include_contexts=course_1751580">No Classes (College Planning Day)</a> ( <a href="https://cf.instructure.com/calendar?event_id=2477653&amp;include_contexts=course_1751580">https://cf.instructure.com/calendar?event_id=2477653&amp;include_contexts=course_1751580</a> )	
	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527203">Test 1</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527203">https://cf.instructure.com/courses/1751580/assignments/12527203</a> )	
	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527201">Test 2</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527201">https://cf.instructure.com/courses/1751580/assignments/12527201</a> )	
	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527191">Test 3</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527191">https://cf.instructure.com/courses/1751580/assignments/12527191</a> )	
	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527199">Test 4</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527199">https://cf.instructure.com/courses/1751580/assignments/12527199</a> )	
	 <a href="https://cf.instructure.com/courses/1751580/assignments/12527183">Test 5</a> ( <a href="https://cf.instructure.com/courses/1751580/assignments/12527183">https://cf.instructure.com/courses/1751580/assignments/12527183</a> )	