

# Syllabus CHMY 105 Explorations in Chemistry

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## Course and instructor information

1. **Instructor:** Dr. Janice Alexander
2. **Email:** [jalexand@fvcc.edu](mailto:jalexand@fvcc.edu)
3. **Virtual Office Hours:** Wednesday 4:15-6:15p.m. or by appointment
4. **Office:** RH 107
5. **Phone:** (406) 756-3948
6. **Lab Location/Time:** RH 100 October 10 - 11, and home labs

## Welcome to Exploration in Chemistry!

Explorations in Chemistry is a great way to have fun and ensure one's chemistry is solid before moving on to the next level. I look forward to working with you! It is very important that you and I communicate often and effectively so that together we can find any areas that need strengthening and find ways to achieve that goal. Feel free to send me an email, post to discussion board virtual office, find me in person, set up an appointment, or give me a call with any challenges and celebrations with the material and the course. It is critical you stay caught up on the lectures, and get homework done each day prior to the next class lectures. It is also important you communicate with me each week for any help needed to master the material.

## COURSE CATALOG DESCRIPTION

An investigation of chemistry, including software and other tools, laboratory methods, and problem solving skills. Topics include the scientific method and its role in the continued development of chemistry; physical and chemical changes; chemical reactions; atoms, elements, and the periodic table; units of measure; dimensional analysis; uncertainty and propagation of error; states of matter; chemical bonding; writing and balancing chemical equations; naming chemical substances; and solving stoichiometry and limiting reactant problems. *Prerequisite: appropriate placement test score in math or a grade of "C" or better in M065 ; or chemistry department consent.*

## COURSE LEARNING OBJECTIVES

Upon successful completion of this course, students should be able to:

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1. Explain chemistry on an atomic or molecular level in fundamental theoretical areas and visualize what happens in a chemical change.
2. Communicate the importance of precision, accuracy, and uncertainty in measurements.
3. Apply methods of inquiry used by chemists.
4. Construct a scientific laboratory report including analytical analysis of the work.
5. Apply the method of dimensional analysis in problem solving
6. Explain and demonstrate the importance of chemical safety, cleanliness, and respect in the laboratory and daily life.
7. Navigate and utilize appropriate software in solving chemical problems.

## COURSE PREREQUISITES

Appropriate placement test score in math or grade of "C" or better in M065; or chemistry department consent.

## COURSE CREDITS

This is a four (4) credit course in the natural sciences.

## REQUIRED TEXTS AND MATERIALS

1. Access to a computer
2. Zumdahl and DeCoste(2015) *Introductory chemistry: A Foundation (8th e.)*. Belmont, Ca. Brooks/Cole/Cengage Learning
3. Scientific Calculator
4. Access to ALEKS homework system
5. Access to a 16-25 foot tape measure and ruler
6. Access to a Webcam
7. Access to digital camera or scanner
8. Access to a printer

## LIVE CHECK-IN

You are required to check-in with your professor, Janice Alexander, three times throughout the semester. There are two check-in options, Zoom or in person office visit. The purpose of the check-ins is to insure that you are understanding the material and to address any issues that may arise. The check-in is part of your class participation grade. If you need to check-in outside of the Wednesday office hours, please may an appointment.



1. September 14
2. September 28, can email or post to discussion board, or Zoom
3. November 16

## OFFICE HOURS

Due to the blended nature of this course and the likelihood of students unavailable until after 5pm, office hours are offered on Wednesday from 4:15-6:15pm or by appointment. For the Wednesday office hours you may either visit your instructor's office, Ross Hall 107, or you may join a video conference through Zoom. See Zoom module for more information.

## LABORATORY AND SAFETY

Please see the Lab section for information about lab and the lab manual. All safety quizzes must be completed with a grade of 100% before attending campus labs on October 10th. If safety quizzes are not completed before 5:00PM MST October 9th, then students are not allowed to participate in on or off campus labs. Students will receive a zero grade for the lab portion of the class and therefore an F for the entire course (lecture and lab). The due date for the safety quizzes is August 31st. Late work penalty applies to these assignments. Quizzes must be completed even though credit is not granted due to the late work policy in order to participate in on and off campus labs.

## GRADES AND ASSIGNMENTS

Please visit the Grades and Assignments module for more information on grades.

## COURSE POLICIES

Please visit the Course Policy module for information on late work, incomplete grades, disability access, attendance, academic conduct, safety, netiquette/professionalism, and copyright.

## COURSE SCHEDULE

Please visit the Course Schedule module for information on assignment due dates.

