



UNIVERSITY of HAWAII®  
**WINDWARD**  
COMMUNITY COLLEGE

## **Chem 161 General Chemistry I**

3 credits (61028)  
Asynchronous online

**INSTRUCTOR:** Michael Ferguson, Ph.D.  
**OFFICE:** Hale `Imiloa 130 or <https://hawaii.zoom.us/j/98910339608>  
**OFFICE HOURS:** M 9-11  
**TELEPHONE:** (808) 235-7400 **EMAIL:** [mferguso@hawaii.edu](mailto:mferguso@hawaii.edu)  
**EFFECTIVE DATE:** Fall 2023

### **WINDWARD COMMUNITY COLLEGE MISSION STATEMENT**

*Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.*

### **CATALOG DESCRIPTION**

Basic principles of inorganic chemistry with an emphasis on problem solving. First course of a two-course sequence designed to meet the one-year General Chemistry requirement for pre-med, science and engineering majors. Topics include chemical calculations, electronic structure, chemical bonding, states of matter and solutions.

### **Activities Required at Scheduled Times Other than Class Times**

This class is asynchronous online. The tasks must be completed online.

### **STUDENT LEARNING OUTCOMES**

The learning outcomes for General Chemistry are: to understand the molecular nature of all phases of matter, to understand the various ways of depicting chemical compounds and chemical reactions, to develop an ability to solve basic quantitative problems regarding the properties of molecules, chemical equilibria, and chemical kinetics, and to develop the ability to appropriately apply this knowledge to general scientific problems in various fields of science and engineering.

More specifically, students should understand:

1. Use the mole concept in solving stoichiometry problems involving solids, liquids, gases and solutions.
2. Balance chemical equations, classify reactions, identify and analyze the role of the chemicals involved in chemical reactions.
3. Predict the behavior of gases while undergoing changes in volume, pressure, temperature and quantity.
4. Manipulate thermochemical equations and calculate the amount of energy involved in chemical reactions.

5. Predict physical and chemical properties of elements based on electronic structure and location in the Periodic Table.
6. Predict physical and chemical properties of compounds based on chemical bonding, geometry and intermolecular interactions.

## COURSE TASKS

Tests follow each series of chapters: test 1 for CH 1-4 (Due February 1); test 2 for CH 5-7 (Due March 1); test 3 for CH 8-9 (Due April 1), test 4 for CH 10-11 (Due May 1); comprehensive final (Due Dec 15). Homework is on Masteringchemistry. Each chapter homework is due at the same time as the tests. Final exam is due May 10.

Forums are optional and are not graded.

## ASSESSMENT TASKS AND GRADING

### Grading Breakdown

Grades will be based on the following weighted categories (subject to change):

Assessment	% of Grade
Test 1-4	10%
Tests total	40%
Homework	35%
Final	25%
Forums	0%
Total	100%

### Grading Policy

Grade	Percent
A	100-90%
B	89-80%
C	79-70%
D	69-60%
F	Below 60

No late tests will be accepted. The comprehensive final score will replace any tests missed. No late submissions on homework.

## LEARNING RESOURCES

Chemistry for Changing Times, Kolb, 15<sup>th</sup> ed. Provided via IDAP

## ADDITIONAL INFORMATION (This may be included here or in an appendix.)

MySuccess: Students may be referred for extra help or advising through MySuccess. Students can also explore resources at MySuccess.Hawaii.edu and [windward.hawaii.edu/MySuccess](http://windward.hawaii.edu/MySuccess)

## DISABILITIES ACCOMMODATIONS

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Accessibility Counselor to discuss reasonable accommodations that will help you succeed in this class. Roy Inouye can be reached at (808) 235-7448, [royinouye@hawaii.edu](mailto:royinouye@hawaii.edu), or you may stop by Hale Kāko‘o 106 for more information.

## SEX DISCRIMINATION AND GENDER-BASED VIOLENCE RESOURCES (TITLE IX)

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Leslie Cabingabang, UH System Confidential Advocate  
 Phone/**Text**: (808) 348-0432 or (808) 341-0952  
 Email: [advocate@hawaii.edu](mailto:advocate@hawaii.edu)  
 Office: Hale Kāko‘o 107 (Wednesdays)

Desrae Kahale, Mental Health Counselor & Confidential Resource  
 Phone: (808) 235-7393  
 Email: [dkahale3@hawaii.edu](mailto:dkahale3@hawaii.edu)  
 Office: Hale Kāko‘o 101

Mykie E. Menor Ozoa-Aglugub, J.D., Title IX Coordinator  
 Phone: (808) 235-7468  
 Email: [mozooa@hawaii.edu](mailto:mozooa@hawaii.edu)  
 Office: Hale Kako‘o 109

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, the University’s Title IX resources and the University’s Policy, Interim EP 1.204, go to [manoa.hawaii.edu/titleix/](http://manoa.hawaii.edu/titleix/)

## ALTERNATE CONTACT INFORMATION

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alaka‘i 121
- Phone: (808) 235-7422