

Welcome to Open Chemistry Online (version 2) – Chem 1

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Thank you for choosing Open Chemistry Online for your pursuit of chemistry knowledge! My name is Alex and I look forward to walking you through chemistry's unique view of the world.

New for version 2 is the deployment of the course into a Canvas cartridge (import as "Common Cartridge 1.x Package"). Other LMS may work but have not been tested with this project.

The course is organized into the following modules, following the corresponding chapters in the [OpenStax Chemistry 2e](#) textbook:

Module	Title	Chapters in OpenStax
Module 0:	Course Introduction	
Module 1:	Units and Conversions	Ch. 1 (Especially 1.4-1.6)
Module 2:	Atomic Discovery	Ch. 2.1-2.3 (Especially 2.3)
Module 3:	Ionic Charges and Compounds	Ch. 2.4-2.6 (Especially 2.6)
Module 4:	Balancing Chemical Reactions	Ch. 3.1, 4.1, 4.3 (Especially 3.1)
Module 5:	Limiting Reactants	Ch. 4.4
Module 6:	Net Ionic Reactions	Ch. 4.2
Module 7:	Predicting Chemical Reactions	Ch. 4.2
Module 8:	Gases	Ch. 9.1-9.2
Module 9:	Gas Mixtures	Ch. 9.3
Module 10:	Thermochemistry	Ch. 5.1-5.3
Module 11:	Light and the Bohr Model	Ch. 6.1-6.2
Module 12:	Electron Configurations and Quantum Numbers	Ch. 6.3-6.6
Module 13:	Lewis Structures	Ch. 7.1-7.4 (Especially 7.3)
Module 14:	Molecular Geometry	Ch. 7.6
Module 15:	Intermolecular Forces	Ch. 10.1-10.3

The modules within this document should stand well enough alone, but if you are looking to use this resource as comprehensively as possible, here are things to consider for getting the most out of each subject.

- 1) These modules do not necessarily make up a comprehensive Chem 1 course! The intention of this resource is to provide a foundation for a launching a new class or course of study, or to provide a refresher of previously learned material.



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- 2) For instructors – this course is well suited for General Chemistry 1, Introductory College Chemistry, or High School Chemistry. The majority of the 15 modules will be included in any of these courses.
- 3) Each module contains an “introduction” file, which holds learning objectives and suggested readings. Begin there if you are looking for a more comprehensive experience. This file also contains captions and attribution information for all figures.
- 4) After completing each video, complete the corresponding 10-question quiz. If you are getting 8-9 correct, you are well on your way! Consider viewing the video again and retaking the quiz for 100%.
- 5) Each module also contains a CHALLENGE quiz. Take the quiz and try to hold yourself to a 15-minute time limit. There is also a REVIEW video of this written quiz that details the solution.

Remember, chemistry is a subject of scientific inquiry – continue to ask questions, find answers in the videos, text, and further literature, and discuss the subject with your peers and experts – and you will find success!



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