

# C-ID Descriptor

## Introduction to Chemistry

### Descriptor Details

- **Descriptor Title:** Introduction to Chemistry
- **C-ID Number:** 101
- **Units:** 4
- **Date of Last Revision:** 6/7/2022 09:10:54 AM PDT

### General Description

This course is a survey of basic chemistry topics. This course is intended as preparation for major's chemistry, allied health, and general education.

### Prerequisites

Elementary algebra or higher or eligibility for transfer-level mathematics

### Corequisites

No information provided

### Advisories

No information provided

### Content

1. Matter – Atoms and Elements
2. Nomenclature
3. Measurement
4. Chemical Bonds
5. Molecular Structure

6. Chemical Reactions
7. Stoichiometry
8. Energy and States of Matter
9. Gas Laws
10. Aqueous Systems
11. Solutions
12. Acids, bases and salts

### **Lab Activities**

Laboratory activities will support the range of topics covered in lecture including chemical laboratory safety, with a focus on hands-on qualitative and quantitative experiments. It is expected that this will be explicitly covered in the course outline of record.

### **Objectives**

*At the conclusion of this course, the student should be able to:*

1. Analyze the fundamental features of chemistry including measurement, mathematical conversion of measured physical properties such as mass, volume, density, pressure, temperature, solutions, concentrations and dilutions;
2. Demonstrate knowledge of the qualitative features of chemistry including physical and chemical properties, naming and writing chemical formulas of compounds and evaluating chemical reactions;
3. Differentiate typical acid and base formulas and compare/contrast the behavior associated with acids and bases;
4. Analyze chemical reactions to quantitatively determine theoretical yield

### **Evaluation Methods**

Examinations  
Homework  
Lab work  
Portfolios  
Projects  
Written papers and/or reports  
Quizzes

## **Textbooks**

Tro, Introductory Chemistry

Zumdahl, Introduction to Chemistry – A Foundation

Bell, Chemical Explorations: Lab Text for Intro Chemistry