

**Eastern WV Community & Technical College
Master Course Record**

Course Prefix and Number: CHM 213 CHM 213L
Course Title: Principles of Chemistry I Principles of Chemistry I Lab
Recommended Transcript Title (if over 40 characters)
Date Approved/Revised: 12/6/16; 10/5/17
Lecture Credit Hours: 3 Lab Credit Hours: 1 Contact hours per week (Based on 15 week term): Lecture: 3 Lab: 2
Prerequisite: MTH 115 or higher Corequisite: CHM 213 and CHM 213L Pre/Corequisite:
Grading Mode: Letter
Catalog Description: Intended primarily for science majors, this course covers the properties of matter and their measurement, atomic theory, reaction stoichiometry, and thermochemistry. Electron configurations, chemical bonding, and molecular geometry will also be introduced. CHM 213L: Lab application and demonstration of concepts presented in CHM 213 Principles of Chemistry I lecture.
Course Outcomes: <ol style="list-style-type: none"> 1. Describe the fundamental properties of atoms, molecules, and the various states of matter with an emphasis on the particulate nature of matter 2. Discuss fundamental atomic structure and the periodicity of elements in the periodic table 3. Perform simple quantum mechanical treatments of atoms and molecules 4. Predict molecular geometries of selected molecular species 5. Use the fundamentals of acid/base reactions, redox reactions and precipitation reactions 6. Apply chemical reactions involve the flow of energy 7. Define current bonding models for simple inorganic and organic molecules in order to predict structures and important bonding parameters 8. Describe general periodicity patterns of (organic/inorganic) molecules, and the ability to design synthetic approaches to such species. 9. Explain the idea of a mole and the use of stoichiometry 10. Define the “gas laws” governing the physical/chemical behavior of gases
Implementation Cycle: Fall
Role in College Curriculum: (Check all that apply) <input checked="" type="checkbox"/> General Education Core: Natural Science <input type="checkbox"/> Technical Core <input type="checkbox"/> Restricted Elective

Course Number & Title: CHM 213 Principles of Chemistry I and CHM 213L Principles of Chemistry I lab

Date Prepared/Revised: 5/4/07; 12/10/01; 9/11/17

Date Course Approved by Curriculum Committee: 12/6/16; 10/5/17

Date Course Approved by IOT: 12/12/16; 10/16/17

<input checked="" type="checkbox"/> General Elective
<input type="checkbox"/> Workforce Education
<input type="checkbox"/> Other (Please specify)
Course Fee: None
Instructor's Qualifications: Master's degree with a minimum of 18 hours graduate work in related science courses.
Expanded Course Description Lecture, class discussion, and class participation will be the main instructional procedures for the lecture portion of this course. A two hour lab will be conducted each week.

Revised by:

Amo Oliverio, Science Instructor

9/11/17

Name

Title

Date

Approved Per LOT Minutes

Dean of Teaching and Learning

Date