

Master Syllabus

CHE 1111 - Introduction to Chemistry I

Division: Science, Mathematics and Engineering

Department: Chemistry

Credit Hour Total: 4.0

Lecture Hrs: 3.0 **Lab Hrs:** 2.0

Prerequisite(s): MAT 0100OR MAT 1110OR MAT 1130OR MAT 1445

Date Revised: September 2016

Course Description:

An introductory survey course for students pursuing health science degrees or who have not previously taken high school chemistry. Topics include matter and measurement, atoms and molecules, chemical reactions, energy changes, atomic structure and bonding, acid/base chemistry, chemical kinetics, nuclear chemistry and organic chemistry. Three classroom hours, two lab hours per week. Traditional testing (proctored or in Testing Center) is used in all online sections.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency

Course Outcomes:

Basic Chemical Reactions

Demonstrate an understanding of basic chemical reactions and factors that affect the reactions.

Assessment Method: Locally developed exams

Performance Criteria:

60% correct responses on exam questions

Chemistry Problem Solving

Perform simple dimensional analysis and mole type calculations, analyze information from word problems and propose proper solutions.

Assessment Method: Locally developed exams

Performance Criteria:

60% correct responses on exam questions.

Basic Chemistry Concepts

Demonstrate an understanding of basic inorganic nomenclature, terms and concepts related to basic atomic theory, chemical bonding, moles, solutions, acid-base and nuclear chemistry.

Assessment Method: Locally developed exams

Performance Criteria:

60% correct responses on exam questions

Organic Chemistry

Demonstrate an understanding of basic organic nomenclature, properties and reactions of hydrocarbons and alcohols.

Assessment Method: Locally developed exams

Performance Criteria:

60% correct responses on exam questions

Outline:

Matter and Measurement
Atoms and Molecules
Chemical Reactions
Energy
Changes of Chemical/Physical Processes
Atomic Structure
Bonding
Acid/base chemistry
Chemical kinetics and equilibrium
Nuclear Chemistry
Organic Chemistry