

## 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

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#### 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