

COURSE SYLLABUS (2 Page)

Course Number: CHEM 1251L
Course Name: General Chemistry I Lab

Credits and Contact Hours: 1

Instructor: Staff

Textbook: General Chemistry I Laboratory, Hayden-McNeil Publishing, 2014-2015 Ed., ISBN: 9780738068978

Catalog Description: Experimental investigations involving the fundamental principles and laws of chemistry. Students may attempt CHEM 1251L a total of three times. Withdrawing from the course after the Add/Drop deadline constitutes an attempt as does receiving any letter grade. Credit will be given for only one course: CHEM 1111L , CHEM 1203L , or CHEM 1251L .
Most Recently Offered (Day): Spring 2016, Fall 2015, Summer 2015
Most Recently Offered (Evening): Spring 2016, Spring 2015, Spring 2014

Pre-Requisites/Co-Requisites: CHEM 1251 (Pre- or Co-requisite)

Course is: Required (R)

Goals: To provide students with some knowledge of the skills and techniques used in chemical investigations. These skills and techniques include thinking, reasoning, rationalization, manual proficiency, and communication techniques. Students should become comfortable in the laboratory environment as well as develop a better understanding of the way scientific and chemical investigations are accomplished.

Student Outcomes Address:

- A. An ability to apply knowledge of mathematics, science, and engineering

Course Topics:

- Safety measures and Introduction to Measurements and Techniques
- Identification of Pure Liquids and Solids by Physical Properties
- Identification of a Hydrate by Water Content
- Qualitative Identification of Cations and Anions
- Creation Solutions of Standard Molarity
- Gravimetric Determination of Phosphorus
- Precipitation Reactions and Limiting Reagents
- Determining Molarity through Acid Base Titration
- Calorimetry: Measurement of Heats of Reaction
- Extraction and Purification of Copper