

# Minnesota State University Moorhead

## CHEM 150L: General Chemistry Laboratory I

### A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: 0

Lab Hours/Week: 3

OJT Hours/Week: \*.\*

Prerequisites:

This course requires any of these 15 prerequisites

MATH 095 - Elementary/Intermediate Algebra

MATH 099 - Intermediate Algebra

MATH 127 - College Algebra

MATH 142 - Pre-Calculus

MATH 143 - Trigonometry

MATH 210 - Concepts from Discrete Mathematics

MATH 227 - Survey of Differential Calculus with Algebra

MATH 229 - Topics in Calculus

MATH 261 - Calculus I

A score of 22 on test ACT Math

A score of 50 on test Accuplacer College Level Math

A score of 520 on test OLD-SAT Math

A score of 1 on test Transfer Equivalent to MATH 127

A score of 1 on test Transfer Equivalent to MATH 095

A score of 1 on test Transfer Equivalent to MATH 099

Corequisites: None

MnTC Goals: Goal 03 - Natural Science

Laboratory techniques of general chemistry including qualitative and quantitative analysis. Course should be taken concurrently with CHEM 150. Safety exam must be passed to remain in CHEM 150L or subsequent lab courses.

**B. COURSE EFFECTIVE DATES:** 08/25/2008 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Experiments related to stoichiometry, the nature of matter, the scientific method.
2. Collection and interpretation of numerical and graphical data.
3. Training in safe practices in a chemistry laboratory.
4. Proper use of laboratory notebooks.

### D. LEARNING OUTCOMES (General)

1. Collect and graphically analyze experimental data and interpret the results in light of various hypotheses regarding the system or principle being studied.
2. Determine the relative error of experimental data and discuss the possible sources of this error.

## **E. Minnesota Transfer Curriculum Goal Area(s) and Competencies**

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.

## **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

## **G. SPECIAL INFORMATION**

None noted