Common Course Outline
CHEM 108
Fundamentals of Chemistry Laboratory
1 Semester Hour

The Community College of Baltimore County

Description

CHEM 108--1 Credit--Fundamentals of Chemistry Laboratory serves as a lab course to accompany CHEM 107 and as a prerequisite to CHEM 121 and CHEM 146; examines how to make & record observations & accurate measurements in an investigative lab setting.

3 hours of laboratory per week

Prerequisite: Minimum grade of C or concurrent enrollment in CHEM 107

Overall Course Objectives

Upon completion of this course the student will be able to:

1. make and record observations and accurate measurements in an investigative laboratory setting;
2. perform various tasks in a safe and accurate manner, using standard laboratory equipment such as the lab burner, electronic balance, thermometer, metric ruler, buret, graduated cylinder, volumetric pipet, and filtration apparatus;
3. preparation and use of a calibration graph
4. work independently and cooperatively in laboratory activities;
5. reach meaningful conclusions based on data obtained; and
6. communicate the results of laboratory investigations orally and in writing in a thorough and accurate manner.

Major Topics

I. Measurement
II. Exploration using the Scientific Method
III. Physical Properties of Matter
IV. Separation and Identification of Components of a Mixture
V. Chemical Reactions
VI. Geometric Structure of Molecules: Molecular Models
VIII. Acid-Base Titration

Course Requirements

Grading/exams: Grading procedures will be determined by individual faculty but will include assessment of the following: written laboratory reports and written and/or practical final examination.

Writing: A minimum of one formal lab report is required. Other written assignments are at the discretion of the individual faculty.

Other Course Information

This course with CHEM 107 may be used to fulfill 4 credits of the General Education requirement in Physical and Biological Sciences.

Individual faculty members may include additional course objectives, major topics and other requirements to the minimum expectations stated in this Course Outline.

Date Revised 3/10/07