

**Common Course Outline**  
**CHEM 124**  
**General Chemistry II Laboratory**  
**1 Semester Hour**

**The Community College of Baltimore County**

**Description**

**CHEM 124--1 Credit--General Chemistry II Laboratory** continues CHEM 122 and introduces additional aspects of laboratory chemistry.

**3 hours of laboratory per week**

**Prerequisite: Minimum grade of C or concurrent enrollment in CHEM 123**

**Overall Course Objectives**

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

1. use computers to gather and analyze data and/or to perform calculations;
2. use laboratory equipment and instruments appropriately;
3. use spectroscopic techniques for quantitative analysis;
4. measure colligative properties of pure substances and solutions;
5. perform titrametric analysis;
6. determine the equilibrium constant of a chemical reaction;
7. perform qualitative analysis of selected cations on a small or micro scale; and
8. determine the rate constants and activation energy of a chemical reaction.

**Major Topics**

- I. Quantitative Analysis
- II. Colligative Properties of Pure Substances and Solutions
- III. Study of Systems at Equilibrium
- IV. Kinetics Studies
- V. Electrochemistry

**Course Requirements**

Grading/exams: Grading procedures will be determined by the individual faculty member but will involve assessment of the following: techniques, experimental results, reproducibility of results, correct identification of unknowns, pre-lab or post-lab questions and quality of written reports.

Writing: Written laboratory reports are required.

**Other Course Information**

This course, with CHEM 123, may be used to fulfill 4 credits of the General Education requirement in Physical and Biological Sciences.

While it is expected that the above topics will be covered, faculty members may include additional topics consistent with department practices:

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