

Common Course Outline
CHEM 203
Organic Chemistry II Laboratory
1 Semester Hour

The Community College of Baltimore County

Description

CHEM 203--1 Credit--Organic Chemistry II Laboratory serves as a continuation of CHEM 201; encourages work on independent projects; emphasizes analysis & synthesis of organic compounds.

3 hours of laboratory per week

Prerequisite: Minimum grade of C or concurrent enrollment in CHEM 202.

Overall Course Objectives

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

1. synthesize organic compounds using techniques developed in CHEM 201;
2. identify unknown liquids and solids by physical and spectroscopic means and to prepare solid derivatives of each compound;
3. to carry out a multi-step organic synthesis;
4. to carry out reactions such as the following: oxidation, hydrolysis, esterification, amide and acid chloride formation, Grignard synthesis, polymerization, and preparation of over-the-counter pharmaceuticals; and
5. keep a record of work by using laboratory notebook and writing reports of the work.

Major Topics

- I. Oxidation of an Alcohol to a Ketone
- II. Substitution Reaction on an Aromatic Compound
- III. Preparation of Polymers
- IV. Preparation of an Alcohol *via* a Grignard Synthesis
- V. Syntheses of Other Selected Compounds
- VI. Identification of Unknowns and Derivative Preparation
- VII. Spectral Analysis

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member but will include assessment of at least 9 experiments plus a final written and/or practical lab exam.

Writing: Students will be required to write each experiment in their lab notebook as required by the instructor. In addition, students will be required to write at least two formal lab reports.

Other Course Information

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

Date Revised: 3/10/07