

## **CHEM 203**

### **Organic Chemistry II Laboratory**

1 Credit: 3 hours of laboratory per week

Community College of Baltimore County  
Common Course Outline

#### **Description**

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

**Pre-requisites: Minimum grade of C or concurrent enrollment in CHEM 202**

#### **Overall Course Objectives**

Upon completion of this course, students 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 and such as the following: oxidation, hydrolysis, esterification, amide and acid chloride formation, Grignard synthesis, polymerization, and preparation of the 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 will be determined by the individual faculty member, but shall include the following, at minimum:

- Assessment of at least 9 experiments
- Final written and/or practical lab exam
- Students will be required to write each experiment in their lab notebook as required by instructor
- At least two formal lab reports

The Common Course Outline (CCO) determines the essential nature of each course.  
For more information, see your professor's syllabus.

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

**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.

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