

Introduction

PREFACE

Welcome to the Organic Lab course! There will be experiments that explore concepts developed in lecture, but they might appear earlier (or sometimes later) in the lecture than performed in the laboratory. Your lecture text will serve as a useful background and reference source (i.e., the chapter on infrared spectroscopy, functional groups, and molecular structure). Also, the first semester laboratory course is one in which the student is exposed to the more common techniques that are used by organic chemists; therefore, one will find that most experiments are designed to introduce a technique rather than focus on a specific reaction. The second semester of the sequence is more reaction oriented. Hopefully, the experience will be an enjoyable one for all.

CHECK-IN

Your experience in Organic lab will start by learning the equipment that you will use throughout the course. ***It is essential that you learn the names of all the equipment in your drawer.*** You will be quizzed on this equipment throughout the semester. Also, make sure to follow all safety protocols and familiarize yourself with all of the emergency and safety equipment in the lab.

- Sign out a pair of chemical splash goggles. This **EYE PROTECTION MUST BE WORN AT ALL TIMES WHILE IN LAB.** Failure to do so will risk eye injury and subject you to immediate expulsion from lab.
- *Carefully read the Laboratory Safety Rules and Regulations* found in this e-book. Do you have adequate eye, skin, and foot protection? At *every* succeeding lab, no matter what the weather may be, **you will be denied admission to lab if you do not follow this “Laboratory Attire Policy.”**
- *Complete the map of Exits and Safety Equipment.* Locate the Exits, Eye Wash, Safety Shower, and Fire Extinguisher on that map. What is the best route to use to exit the building in an emergency? Check emergency equipment and exits *now* before an emergency exists.
- The properties and hazards for each compound can be found in the Merck index (library), Aldrich catalog (Tutorial Center and labs), or through the NCSU database¹ (has the complete SDS information).

In the lab, you will perform the experiment and collect your data and observations. Each experiment is different; some require calculations. Make sure to include all observations and all calculations. Turn in the lab worksheet to your TA at the end of the lab period. If you have any questions, please ask your lab TA.

¹<https://jr.chemwatch.net/chemwatch.web/home>