



# MODULE: LABORATORY READINESS

## OVERVIEW

### Learning Objectives

At the conclusion of this module, you will be able to:

- Interpretation: State the importance of Laboratory Safety to the process of research
- Interpretation: Explain the importance of keeping a laboratory notebook, identify elements that should be included, and discuss when and how entries should be made
- Application: Review a sample laboratory notebook entry for proper formatting and completeness

### Checklist

Prior to meeting with mentor

- Review Handout 1: Laboratory Notebooks for instruction on how to properly maintain a lab notebook
- Complete Handout 2: Laboratory Notebook Exercise

Discussion with mentor

- Review the Laboratory Notebook Exercise
- Discuss techniques for maintaining a thorough lab notebook

Mentee Deliverables

- 1. Deliverable 1: Bring a printed copy of your Laboratory Notebook Exercise to your next meeting with your mentor.**
- 2. Deliverable 2: Bring a printed copy of your responses to the Five-Minute Reflection to the next meeting.**



## Materials

- Handout 1: Laboratory Notebook
- Handout 2: Laboratory Notebook Exercise
- Handout 3: General Safety

## Introduction to Laboratory Readiness

The first criteria for a successful experiment is that no people were injured and no equipment was damaged. A well-run laboratory will have carefully developed procedures to ensure safety and quality of results. We start with the idea that ALL students can and should learn science by conducting laboratory investigations, that is why you are here. The start of this journey is to step into the laboratory understanding procedures and protocols:

- Lab safety is critical, and students should learn to proceed with caution.
- Each discipline and laboratory setting has its own set of hazards.
- Follow closely the safety training requirements given by lab managers and mentors.
- Correct documentation and certification are critical steps to complete prior to working in the lab.

## Assignment(s) for this Module

Refer to 'Handout 2: Laboratory Notebook Exercise' for this assignment. You are provided an example laboratory notebook entry. Look over it for completeness and formatting. Provide markups where needed to address improvements that should be made.

**Deliverable 1: Bring a printed copy of your Laboratory Notebook Exercise to your next meeting with your mentor.**

## Five-Minute Reflection

What questions do you have about the importance of maintaining a laboratory notebook? How do you anticipate keeping a laboratory notebook for your own research?

Come up with one question to discuss with your mentor (maybe a concept you are unclear on, something you found interesting, etc.)



# Research Experience and Mentoring

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What information did you feel was the most informative? Least?

**Deliverable 2: Bring a printed copy of your responses to the Five-Minute Reflection to the next meeting.**