

Research Experience and Mentoring

Created under NSF Grant: EAGER CBET 1451319 http://eqpoint.info/rem

MODULE: LABORATORY READINESS

MENTOR GUIDE

Checklist

Prior to meeting with mentee(s)

- □ Familiarize yourself with the content provided in the overview document.
- An important element of the mentee meeting is convincing them of the importance of maintaining a high-quality, timely notebook. Prepare your reasons for wanting them to take the time and effort to do this documentation.
- In order to emphasize the importance of laboratory safety, we found it was useful to have one student make a short (5 minute) presentation each week on a concise safety topic. The PowerPoint presentation "Can I Chew Gum in the Lab?" could be used by the mentor to set the tone and model for such presentations during this meeting.
- The General Safety assignment asks the students to make a sketch of your laboratory with the safety equipment and potential hazards. You may want to provide an answer key or plan a walk-through of the laboratory.

Discussion with mentee(s)

- Lab Safety
- □ Lab Notebook and Documentation
- Research Planning
- □ Five-Minute Reflection

Suggested Schedule

- 1. Review the module materials.
- 2. Distribute module to mentee and give brief background, review assignment expectations. Schedule mentor-mentee meeting.
- 3. Direct the mentee to work on module content independently, remind mentee to bring assignments and reflection to meeting.
- 4. Discuss email etiquette, time management, lab notebook/documentation, and research planning. Review assignments.
- 5. Review the mentee's completed five-minute reflection and discuss any points of confusion.



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Considerations

- 1. Show either your lab notebook or a colleague's/former student's as an example of good lab notebook etiquette.
- Consider having students give a short presentation on laboratory safety at the start of group meetings. The sample presentation, "Lab_Readiness_Sample_Safety-Gum.pptx", describes the prohibitions on food and cosmetics in the laboratory. Potential Safety Topics:
 - a. Safety Chemical
 - b. Safety Compressed Gas
 - c. Safety Electrical
 - d. Safety Ergonomics
 - e. Safety Fire Extinguisher Use
 - f. Safety Gum in the Lab
 - g. Safety Hearing Protection
 - h. Safety Height Hazards
 - i. Safety Machine Guarding
 - j. Safety Radiation
 - k. Safety Sharks v Sharps Presentation
 - I. Safety Slips, Trips, and Falls
 - m. Safety UV Protection
 - n. Safety Sources of Information
 - o. Safety Stress Management