



Biological Teaching Lab Guidance

Introduction

Montana State University is committed to the health and safety of all its students. Teaching laboratories pose a unique set of hazardous circumstances to students, instructors and teaching assistants (TAs). The American Society for Microbiology (ASM) and the Centers for Disease Control (CDC) have created guidelines for best practices in teaching labs designed to encourage awareness of the risks and protect the health of students. Research Integrity and Compliance (RIC) has developed policies and procedures to ensure consistency across all biological teaching laboratories and promote safe learning environments.

Responsibilities

RIC is responsible for ensuring compliance with local, state and federal regulations and MSU policies related to laboratory practices involving biological materials. All teaching laboratories where biological materials are used must comply with these guidelines.

Course Instructors are responsible for training and supervision of teaching assistants (TAs) (including undergraduate or graduate student assistants) for their classes. They are also responsible for submitting a teaching protocol for any course using biological materials to RIC for approval. RIC will review the course syllabus annually, and upon any changes to the protocol.

Teaching Assistants are responsible for the implementation of the safety guidelines in each of the laboratory classes. Prior to handling biological materials, time in lecture or lab should be dedicated to covering lab safety.

Students are responsible for their own safety. Each student must follow and sign the safety guidelines for the course, and work in a safe manner. Students are responsible for wearing appropriate personal protective equipment needed for the class and for immediately reporting any spills, accidents or injuries.

- Immune-compromised students (including those who are pregnant or may become pregnant) and students living with or caring for an immune-compromised individual should consult their physician to determine the appropriate level of participation in the lab.
- Courses may include a lab with biohazardous materials. If you have a service animal that needs to accompany you to the lab, planning ahead is necessary. Please see this link for more information: [IBC Policy for Service Animals in Research and BSL-2 Teaching Laboratories](#)

Teaching Assistant Expectations

1. Teaching Assistants must complete and be current on applicable RIC training requirements and departmental training requirements.
2. Teaching Assistants must comply with all safety rules established in the approved teaching laboratory protocol. This includes, but is not limited to:
 - a. Wearing appropriate lab attire and PPE when in the lab and during lab sessions.
 - b. Never eating or drinking in the lab.
 - c. Following all general hygiene practices, including washing hands after glove removal and any time they leave the lab.
3. Teaching Assistants are expected to be prepared and attentive during the lab session.
 - a. Any pre-lab discussions, including any hazard information, must be prepared.
 - b. No cell phone or computer use during the lab session.
 - c. TAs are expected to correct any inappropriate student practices.
 - d. TAs are expected to monitor waste disposal and correct any inappropriate disposal methods.
4. Teaching Assistants are expected to spend the entire lab session in the lab. If a TA must leave the lab, they must:
 - a. Inform the instructor that they must leave the lab.
 - b. Ensure the students are supervised, either by another TA or the instructor.
 - c. Inform the students who they should inform if there is a problem and that their primary TA is leaving.
 - d. Limit the amount of time spent out of the lab.
5. Teaching Assistants must be familiar with all emergency protocols for the lab, including the location of eye wash and emergency shower locations, fire exits and fire extinguisher locations, and who to contact in the event of an emergency. TAs must inform the Course Instructor as soon as possible of any injury or exposure.
 - a. Minor biological exposures to the skin: Flush the affected area for 15 minutes with soap and water. Contact the biosafety officer while the student irrigates to determine follow-up needs.
 - b. Minor Physical Injury: Perform first aid. Arrange transport for the student to the Student Wellness Center for minor injuries if necessary.
 - c. Significant biological exposure, or physical injury: Dial 911 for emergency transport to the hospital emergency department.
 - d. Eye exposures: While the student flushes at the eyewash contact the chemical safety officer of biosafety officer to determine treatment location.

Reporting: All accidents, injuries, or potential exposures must be promptly reported. Contact Safety and Risk Management as soon as the immediate medical needs of the injured or exposed person have been addressed. Here are links for reporting guidance for [students](#) or paid [employees](#).

Emergency Contact Numbers:

Biosafety Officer: 406-994-6733

Research Integrity and Compliance: 406-994-6732

Student Health Services: 406-994-2311

Bozeman Deaconess Emergency Department: 406-414-5000

Medical emergencies: 911