**Enter Department Teaching Laboratory Biosafety Protocol**

**Class:** Enter Class/Project Title

**Location:** Enter building and room number

*Laboratory activities:* Briefly outline the activites to be performed. Include discussion about assays, biological agents, and waste management.

*Course learning outcomes (Lab):*

* Outline objectives of the course.

**Personnel**

*Department Head:*

*Course Instructor:*

*Teaching Assistants:*

*Student Assistants:* NA if none.

*Laboratory support:* NA if none.

**Personnel training:**

All instructors, graduate teaching assistants (TAs), student assistants (SAs), and laboratory support staff are required to have completed chemical safety and hazard communication training as well as **MSU Biosafety for the Laboratory Worker** (this course combines Biosafety for BSL1 and BSL2 Laboratories and the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules) and, if appliable, **OSHA Bloodborne Pathogens** training.

|  |  |
| --- | --- |
| **List Current Personnel** | **Training Date** |
|  |  |
|  |  |

**Student training:**

Students enrolled in the lab course will receive lab safety training prior to conducting any lab activities. Rules and guidelines covered are specified in the personal protective equipment (PPE) and Lab Safety section below. Students are required to sign the Lab Safety Rules document. In addition, prior to each lab exercise, students will receive specific safety guidelines regarding lab exercises, PPE, and cleanup procedures.

**Microorganisms:**

Students will perform lab experiments using the organisms listed below or from environmental sources. Students are not allowed to subculture. A well maintained and cataloged culture collection containing authenticated stock cultures is required. Complete the table below with the following details:

* Organism: Complete genus, species and strain (if known) of the microorganism;
* Biological Material: List any other biological material used, such as, but not limited to: human blood, blood components, human cells; or recombinant or synthetic nucleic acid molecules.
* Origin: Where the culture, sample, plasmid, etc. came from and the stock number from the originating collection (e.g., ATCC#, Addgene#, self-collected or environmental sample)
* BSL Level: Biosafety level as defined by the commercial source of the culture. Consult with the Biosafety Officer if unknown.

|  |  |  |
| --- | --- | --- |
| **Organism/Biological Material** | **Origin** | **BSL Level** |
|  |  |  |
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**Standard Operating Procedures**

Lab protocols and procedures adhere to the ASM Guidelines for Biosafety in the Teaching Labs and the Montana State University Biosafety Manual (listed below).

<https://asm.org/Guideline/ASM-Curriculum-Guidelines-for-Undergraduate-Microb>

<https://www.montana.edu/ric/biosafety/forms-manuals-regulations/msu-biosafety-manual.html>

**Personal Protective Equipment (PPE)**

Outline Personal Protective Equipment (PPE)

**Laboratory Safety Rules for** Click or tap here to enter text.

* General instructions while in the lab:
	+ Coats, backpacks, purses, laptops, phones, etc. should be placed in the location assigned by the instructor. These items are not to be found on the bench or floor of the laboratory.
	+ Clean your bench space with disinfectant solution before you sit down and before you leave the room for the day.
	+ Do not eat, drink, apply cosmetics, adjust contact lenses, or bite nails in the lab.
	+ Keep fingers, pencils, and other materials away from your face and mouth.
* Attire in the lab:
	+ Eye protection and gloves are required when handling chemical and biological materials.
	+ Wear closed-toed shoes and leg covering past the knee.
	+ Nitrile gloves will be provided as needed. Wear gloves when handling microorganisms or hazardous chemicals. Gloves must be discarded in the biohazard trash bags (not in the regular trash can).
	+ Lab coats are required while in the lab. Do not remove lab coats from lab. They will be autoclaved at the end of each semester or when compromised (contaminated, torn, etc.).
* While working in the lab:
	+ Keep as few items as possible on the bench top.
	+ Have all materials close at hand and ready to use.
	+ Avoid creating aerosols.
	+ Use proper transport vessels (test tube racks) for moving cultures in the lab or when keeping cultures on bench tops for use. This prevents accidents and contamination of your person or belongings.
	+ Notify instructor of all spills, injuries, or broken glass. Your instructor will assist in proper cleanup.
	+ Do not mouth pipet.
* Using inoculating loop and lab specimens:
	+ Sterilize inoculating loops with micro incinerator before and after each use.
	+ Do not place contaminated or hot inoculating loops onto a surface.
	+ Do not leave inoculating loops in the incinerator as this will cause them to degrade.
	+ Do not place contaminated lids of Petri dishes or tubes on the bench top.
* When leaving the lab:
	+ Discard contaminated items in the appropriate containers. The containers will be labeled and your TA will provide specific disposal instructions.
	+ Remove your lab coat and place it where you are instructed. Ziploc bags may be provided to store lab coats and safety glasses.
	+ Remove gloves and wash hands before leaving the lab.
* This course includes a lab with biohazardous materials. If you have a service animal that needs to accompany you to this lab, planning ahead is necessary. Please see this link for more information: <https://www.montana.edu/ric/biosafety/policies/service-animals-in-research-and-bsl-2-teaching-laboratories.html>
* Immune-compromised students (including those who are pregnant or may become pregnant) and students living with or caring for an immune-compromised individuals should consult physicians to determine the appropriate level of participation in the lab.

*I have read the above safety rules and understand their meaning. I will follow them to the best of my ability and will ask for clarification when needed.*

Print name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: Date: