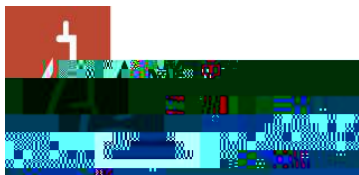


Guidelines for Biosafety in Teaching Laboratories



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CONTRIBUTING AUTHORS

ASM Task Committee on Laboratory Biosafety –

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Preamble

Educators must maintain awareness of the inherent risks of using microorganisms in the laboratory and employ best practices to minimize the risk to students and the community. A core principle of biosafety is the containment of microorganisms; therefore, organisms used in the teaching laboratory must remain in the laboratory and instructors must guard against inadvertent passage of the microbes out of the laboratory by a student or assistant. Ev

Risk Assessment

Prior to setting up a lab, it is good practice to conduct a risk assessment of the laboratory activities and procedures you plan to use. During a risk assessment, the instructor will need to identify potential hazards, critical processes or procedures, and needed or required protective measures to control the risk. In an instructional lab, there are three common biological risk factors:

- ” *Novices*. The CDC’s Biosafety in Microbiological and Biomedical Laboratories (BMBL; <https://www.cdc.gov/biosafety/publications/bmbl5/>) manual BSL criteria work under the assumption that the people working in the lab are well trained and competent in the procedures used in the lab. By definition, instructional labs are designed to train people in procedures. Working with novices increases the risk, and it is best to assume the student knows little to nothing about the laboratory’s culture of safety. Safety training as well as documentation of that training are therefore essential.
- ” *High Cell Density Cultures*. During instructional labs, students grow organisms. The organisms used at BSL-1 are not consistently associated with a disease, but these organisms may pose a health risk once grown to a high cell density. Training students to recognize this potential risk is

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Training Practices

BSL-1

x

- x *Exiting the lab.* When the animal is to exit the lab, the coat, paw coverings, and goggles should be removed and disinfected.
- x *Emergency contacts.* In case of an accident involving a service animal, the lab coordinator should add to the lab safety manual emergency contact information