

BIOL 111L: Cell Biology Lab

Biosafety in the Lab – adapted from American Society for Microbiology

Here you will find the safety information pertinent to the two weeks of lab where we will be working with bacteria. You **MUST** follow these safety procedures. We will be using a bacterium designated as Biosafety level 2 – BSL 2 is suitable for organisms that pose moderate individual risk and low community risk for infection. When good microbiological techniques are used, these organisms rarely cause serious disease, and effective treatment for laboratory-acquired infections is available.

Personal Protection Requirements

- Wear closed-toe shoes that cover the top of the foot (i.e. no ballet flats).
- Wear gloves if you have fresh cuts or abrasions. Gloves are not required for standard laboratory procedures if proper hand hygiene is performed. Proper hand hygiene involves thorough hand cleansing prior to and immediately after finishing handling microorganisms and any time that microbes accidentally contact the skin. Hand cleansing is performed by washing with soap and water or rubbing with an alcohol-based hand sanitizer.

Laboratory Physical Space Requirements

- Require all laboratory space to include:
 - Nonporous floor, bench tops, chairs, and stools.
 - Sink for hand washing.
 - Eyewash station.
 - Lockable door to the room.
- Follow proper pest control practices.
- Keep personal belongings in an area separate from the work area.
- Keep working and validated autoclave in the building or arrange for licensed waste removal.
- Post biohazard signage
 - Wherever cultures are used and stored.
 - On the door to the room
 - On any containers used to transport cultures.

Standard Laboratory Practices

- Wash hands after entering and before exiting the laboratory.
- Tie back long hair.
- Do not wear dangling jewelry.
- Disinfect bench before and after the laboratory session with a disinfectant known to kill the organisms handled.
- Use disinfectants according to manufacturer instructions.
- Do not bring food, gum, drinks (including water), or water bottles into the laboratory.
- Do not touch the face, apply cosmetics, adjust contact lenses, or bite nails.
- Do not handle personal items (phones, pens, pencils, computers, tablets, etc.) while in the laboratory.
- Label all containers clearly.
- Use proper transport vessels for moving cultures in the laboratory, and store vessels containing cultures in a leak-proof container when work with them is complete.
- Use disposable loops.
- Proper decontamination and disposal of contaminated material.
- Do not handle broken glass with fingers, use dustpan and broom.
- Notify instructor of all spills or injuries.
- Document all injuries according to policy.
- Use only provided marking pens and writing instruments.
- 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 physicians to determine the appropriate level of participation in the laboratory.