Microbiology Laboratory
Safety Rules and Procedures

Each student enrolled in a microbiology laboratory at Youngstown State University must follow specific safety rules and procedures. Some of these rules and procedures are listed in the beginning material of your laboratory manual. Others are listed below. Those rules or procedures listed in your laboratory manual that appear to be in conflict with those given below should be resolved by asking your course instructor or teaching assistant (TA) for clarification.

**General Safety Rules and Procedures**

1. No food or drinks are permitted in the laboratory at any time.
2. Only closed-toe shoes are to be worn in the laboratory. Sandals are not permitted.
3. Keep hands and other objects away from your face, nose, eyes, ears, and mouth. The application of cosmetics in the laboratory is prohibited in the laboratory.
4. Work areas/surfaces must be disinfected before and after use.
5. Laboratory coats must be worn and buttoned while in the laboratory. Laboratory coats should not be worn outside the laboratory.
6. Protective eyewear must be worn when performing any exercise or procedure in the laboratory.
7. Long hair should be secured behind your head.
8. Hands must be washed before leaving the laboratory.
9. All unnecessary books, purses, briefcases, etc., must be kept off the countertops.
11. Label all materials with your name, date, and any other applicable information (e.g., media, organism, etc.).
12. Dispose of wastes in their proper containers (see Biohazard Waste Disposal below).
13. When handling chemicals, note the hazard code on the bottle and take the appropriate precautions indicated.
14. Do not pour chemicals down the sink.
15. Return all chemicals, reagents, cultures, and glassware to their appropriate places.
16. Do not pour biohazardous fluids down the sink.
17. Glassware should be washed with soap and water, then rinsed with distilled water.
18. Flame transfer loops, wires, or needles before and immediately after use to transfer biological material.
19. Do not walk about the laboratory with transfer loops, wires, needles, or pipettes containing infectious material.
20. Be careful around Bunsen burners. Flames cannot always been seen.
21. Turn off incinerators before leaving the laboratory.
22. Report any broken equipment.
23. Immediately, report any broken glass, especially those containing infectious materials.
24. If you are injured in the laboratory, immediately contact your course instructor or TA.
25. Any chemical or biological fluid spills must be immediately reported to your course instructor or TA.
26. Follow all instructors given by your course instructor or TA for cleaning up any spills or broken glass.
27. Familiarize yourself with safety equipment in the laboratory and emergency escape routes.
28. Always wipe and clean the lenses of your microscope before putting it away. Use the appropriate tissue paper and cleaning solution for this purpose.
29. Use appropriate universal precautions with all biological fluids.
30. **Do not remove any materials from the laboratory without the written permission of the course instructor or TA.**

### Biohazard Waste Disposal

Dispose of items in the special receptacles as indicated below. If you have a question regarding the proper disposal of an item, please ask your course instructor or TA.

<table>
<thead>
<tr>
<th>Material</th>
<th>Method of Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agar slants with biological material</td>
<td>Place tube upright in indicated test tube rack, but place caps in basket as indicated</td>
</tr>
<tr>
<td>Biological liquids (not in test tubes)</td>
<td>Leave in container with closed cap and/or follow specific instructions given by the TA or course instructor</td>
</tr>
<tr>
<td>Biological liquids in test tubes</td>
<td>Place tube upright in indicated test tube rack with caps left on the tube</td>
</tr>
<tr>
<td>Broken glass (contaminated)</td>
<td>Sharps container</td>
</tr>
<tr>
<td>Broken Glass (not contaminated)</td>
<td>Broken glass container</td>
</tr>
<tr>
<td>Cotton Swabs (contaminated)</td>
<td>Benchtop disinfectant/discard can</td>
</tr>
<tr>
<td>Needles, glass slides, syringes, pipettes, other types of sharps</td>
<td>Sharps container</td>
</tr>
<tr>
<td>Noncontaminated paper</td>
<td>Regular trash</td>
</tr>
<tr>
<td>Petri dishes and contaminated solids (other than pipettes or swabs)</td>
<td>Biohazard “orange/red bag” container</td>
</tr>
<tr>
<td>Transfer pipettes (contaminated)</td>
<td>Benchtop disinfectant/discard can</td>
</tr>
</tbody>
</table>

In general, noncontaminated items that pose no threat as a sharp object capable of causing injury can be disposed by placing them in the regular trash. All sharps, contaminated or not, should be discarded into the sharps container. All other contaminated materials have specific locations in which they are discarded.