MIRAMAR COLLEGE
MICROBIOLOGY LABORATORY
PROCEDURES AND CONDUCT

Students are expected to be familiar with lab procedures. Tests and quizzes will include any information listed below. Read the Introduction in the lab manual on page ix. You are responsible for that section as well as the below material.

LAB SAFETY:

The unauthorized removal of test tubes, slides, plates or cultures from the classroom is prohibited by the Miramar Science Department, the S.D. County Health Dept., and the State Health Departments. Students who violate these rules are subject to disciplinary action including their dismissal from the course.

1. Lab coats and gloves should be worn at all times. (Instructor will discuss the policy further).
2. Closed-toed shoes are preferred for protection from spills and accidents.
3. Long hair must be tied back during lab.
4. Treat all organisms as pathogens.
5. No eating, drinking or smoking in lab.
6. Wash hands before you begin work and before you leave.
7. Wash down bench with disinfectant (Amphil, Envirocide or other) before and after work.
8. No extraneous books, folders, purses, or book bags on lab bench top.
9. Report all spills and accident: Be prepared to identify the microbe as the instructor requests. Saturate the spill area with disinfectant and allow to sit for several minutes. Then:
   1. place paper towels over spill and pick up and discard in Bio-bag.
   2. consolidate glass and discard in Sharps container. No broken glass in BioBag
10. No cultures in lockers at any time.
11. You will be held accountable for all test tubes, media, slides and locker contents in this course.
12. Always use aseptic techniques.
13. Staining will be done at lab tables only--please do NOT use counters along wall.
14. Once prepared, hanging drop slides cannot be left in lockers.
15. Test tubes will be transported in a test tube rack at all times. Anyone found carrying cultures, plates or tubes other than in a specified manner is creating a potential hazard.

MECHANICS OF THE LAB:

1. Please clean up after yourselves. Place all items back in their respective places. The lab should look the same as when you entered on day one. The sinks should be washed down, chairs pushed in, no trash on the floors or tables. Points will be deducted from your techniques grade if you do not follow good laboratory techniques, safety and neatness.

2. Your stains and reagents are in your own personal equipment box. Label your box and keep it neat. You should have a rack, loop, needle, slides, lens paper and bibulous paper in this box. The community cabinet will have shared items, Bunsen burner striker, microscope and if necessary a staining tray. Stain refills are in the stains cabinet. You must maintain your own stains and reagents. Disinfectant bottles will be on your desk or in the cabinet at the end of each lab table under the staining sinks. It is the student's responsibility to refill the staining kits and disinfectant bottles. Refill stains in the sink, not on the counter.

3. Other reagents are in labeled cabinets, ask instructor or lab technician.
4. When you are done with items, dispose of them properly. Petri plates go in the biobag, test tubes in orange racks and slides in to Sharp’s containers. There will be disinfectant containers at the morgue area at all times: Plastic cylinders for pipettes only. Sharp’s containers for slides. Put hanging drop slides in disinfectant only, not in Sharp’s container. Remove all marks from test tubes before decontaminating. Read signs and labeling.

5. Since several types of materials in the micro lab must be disposed of safely, it is essential to evaluate each situation and then act appropriately.

A. The most important question by far is: Does the material contain live bacteria, other cultural material, or is it contaminated? If the answer is yes, then it must never be discarded in the trash or down the drain where it will create a biological hazard. It must first be decontaminated with heat (autoclaving) or by a disinfectant.

Yes. Materials in this category are tubes and plugs, plates, hanging drop slides (but not fixed slides), pipettes, and paper towels placed on spills.

a. Test tubes are reusable so your job will be to prepare them for autoclaving by:
   1. removing all marks and labs from glassware (not necessary for Petri plates).
   2. setting them upright in correct racks according to size, but at no time do you expose yourself directly to their contents. After autoclaving, they will be washed and reused.

b. Petri plates are not reusable, but they still must be sterilized before throwing them in the trash. Your responsibility will be to place them in the orange biobags in the “morgue”, taking care to not open them up or overfill the bag. Obviously, it is not necessary to remove marks from them.

c. Hanging drop depression slides are reusable and will contain live bacteria. Clean and disinfect them by placing them in a basin of disinfectant prepared by the lab tech. Ordinary slides do not belong in this container. Pipettes are also placed in a special container of disinfectant, lip down.

d. Any sort of contaminated disposable solid material is to be placed in the orange bag.

No. If the answer to the question in A is no, then the materials can either be handled by you or placed in the regular trash containers when discard is intended. Reusable materials that can be safely decontaminated by students are plain slides and inoculating tools. Materials permanently discarded and safe to place in the trash are paper towels used for hand and slide washing and lens paper.

6. Identify (label) everything with:
   A. name or initials.
   B. your lab number
   C. name and source of organism or which lab experiment is it for
   D. Date – day and month
   E. Mis-marked tubes and plates are subject to loss and unscheduled disposal.

7. Tubes may be labeled with labels and rubber bands (if you use a marker – you must clean it entirely off before placing for autoclaving. The autoclave will make the marks permanent.
8. MICROSCOPES: HANDLE WITH CARE, KIMWIPES ARE NEVER USED.

   After use:
   A. raise microscope body tube to highest position or stage to lowest
   B. lowest power lens in position
   C. oil wiped off lens with LENS PAPER (from oil immersion)
   D. slide holder centered.
   E. light off.
   F. cord coiled on cord hanger.
   G. Return to correct location.

   Please report any problems.

9. Microscope slides are purchased in the bookstore. You may keep them in your cabinet. You may
   reuse these slides by washing them with soap and water and allowing them to dry in the slide
   box.

10. Students are not allowed to work in the lab without an instructor present.

11. DO NOT accumulate excess materials (slides, hanging drop slides, paper towels, elastic bands,
    colored pencils) in your locker.

12. You are responsible for your own materials and clean up. Take care to make sure your organisms
    and materials are dealt with properly.