

Microscope Experiment Specific Requirements (Version 2.5)
BI-102, Fall '07, Dr. C. S. Tritt

Work in teams of two or three. Submit one report per team.

Word your objectives as hypothesis. For example, if you want to compare frog blood to human blood your hypothesis could be: “Frog blood cells can be distinguished from human blood cells using a compound light microscope (because they have nuclei while human cells do not).”

Each team must have 4 or 5 hypotheses and corresponding procedures written in your laboratory notebooks before you start taking any data. I will check your procedures and make suggestions if necessary. This will prevent you from spending time performing procedures that could not provide acceptable results.

Submit reports at the start of lab during week 4. Reports must include (for each hypothesis):

- a) Some **Background** or **Introduction** text, this section should include drawings or photographs showing what you expect to observe,
- b) a clear statement of you **Hypotheses**,
- c) a list of the **Supplies** and **Equipment** you used.
- d) a clear but brief statement of your **Procedures** (For example, “we observed a prepared slide labeled Nasco MX7, frog blood using 10x and 40x objectives on a model 100 XYZ microscope”),
- e) **Results** including:
 - i. your calibration images (1 each using 4x, 10x, 40x objectives (use of the 100x objective is optional)),
 - ii. **Sketches** of what you observed through the microscope (**at least one by each students**),
 - iii. images that you capture using the microscope with scale bars added manually or electronically (each hypothesis should be supported by at least 2 “views (different slides, parts of slides and/or magnifications)” through the microscope).
- f) **Discussion**: A careful and complete discussion of your results with particular emphasis on how the results relate to your hypothesis.
- g) a brief **Conclusions** section and
- h) a list of **References**.

I'll provide colored pencils for your drawings. In this case, colored pencils may be used in your notebook. Be sure your drawings show the critical features discussed in your report.

All **tables** and **figures** should be **numbered** and have **captions**. They may be collected and placed in an appendix at the end of your report.