

Photographic Sciences PHBM 312

Photography and the Microscope

Assignment One - Getting acquainted (or re- acquainted)

Objective: Using a compound light microscope, produce color images of the same subject using all the various objectives on the microscope (except oil). The images must demonstrate optimum management of:

- exposure/brightness constancy/color saturation/sharpness
- proper use of Kohler illumination
- proper use of aperture diaphragm
- Please insert bar scales on the images

Purpose: It may have been some time since the last time you have sat down to make photomicrographs using a light microscope. This exercise will provide an opportunity to get (re) acquainted with light microscopy and the production of high-quality photomicrographs.

Assignment:

A) Using a compound light microscopes, produce a series of color images using one sample and a variety of objectives ranging in magnification from the 4x and up through at least a 20x objective. Your images must reflect optimum:

- Exposure/density/color saturation
- Proper use of Kohler illumination
- Proper use of aperture diaphragm
- Please insert bar scales on the images

B) Produce a series of color images of one sample using a 10x objective. Making one exposure with the aperture diaphragm equal to the NA of the objective, make three additional exposures as the AD is adjusting from wide open to closed down completely

- Exposure and color saturation
- Proper use of Kohler illumination
- No bar Scale is needed

C) Additionally, once the microscope has been set up, and optimized, replace the camera with your cell phone. Once aligned, make a minimum of three photomicrographs of the using the 10X objective

Submission: Multiple color, images that are between at an appropriate resolution pixels using a .TIF file format and identified in the folder with your name, subject and proper magnification. Additionally, the submission should be accompanied by the micrometer views.

Files will need to be submitted to the CIAS server by: Feb 4th at midnight

Due Date: Thursday February 5 at 8:00am

Please submit TIF files and name the files with your name and any other image attributes to assist in evaluation