**MCB2010L –Microbiology Lab**

**Week 1: Brightfield Microscopy**

* Types of Microscopy:
  + Light microscope
    - Compound microscope – the one we use in this lab
    - Stereomicroscope – also known as a dissecting scope
  + Electron microscope
    - TEM
    - SEM
* Familiarize yourself with the parts and functions of light compound microscope
* Familiarize yourself with use, care, and storage
* Focus
  + Resolution/Resolving power/Numerical aperture
  + Magnification
  + Contrast
  + How to increase resolution
* Oil immersion lens (100X) \*\*\*\*\*never let Hi Dry (40X) touch the oil\*\*\*\*\*

**Exercise 2: Bacterial shape**

* Identify basic shape of bacteria
  + Cocci; diplococci, staphylococci, streptococci
  + Bacilli; single rod or chain (streptobacilli)
  + Spiral; curved rod, spirilla, spirochetes

**Activitites**

1. Students take out the microscope, study parts and functions, learn how to clean, store, and most important, how to focus.
2. Start with slides number 5 and 11, work on focusing starting with 4X, 10X, 40X, and 100X. Check with the instructor to show your work.
3. View the remaining of the slides.