**MCB2010L –Microbiology Lab**

**Week 3: Pure Culture Techniques**

* Pure Culture
  + Bacteria exist in normal environments in mixed populations
  + Important to isolate bacteria from others to characterize the pathogen
    - Want to dilute sample so that single bacteria cell gives rise to single pure colony
      * What is a colony?
  + 3 common procedures: spread plate, pour plate and streak plate:
    - Streak plate
      * This will be what we will use today, Method on page 31
      * **Work in pair: get 1 TSA plate and 1 EMB plate** 
        + **Make a streak plate of mix 1 on TSA, room temp.**
        + **Make a streak plate of mix 2 on EMB, 37°C**
    - Spread plate and pour plates – just discussion!

**Smear Preparation and Simple Staining**

* Smear Preparation
  + Look at figure 6-4, page 40
  + Prepare smear from solid media, label name of organism
  + Prepare smear from liquid media, label name of organism
  + Air dry and heat fix, then proceed on simple staining
* Simple Staining
  + Simple stain slides made in Lab 10
  + Use of single stain to color bacterial cell
  + Choose one of the dyes and use the time given on page 41: Carbolfuchsin, Crystal violet, Safranin, and Methylene blue
  + Follow the procedure on page 40-41
  + Observe on 100X, view and draw your slides on page 43
  + **Each student will stain 2 slides**