**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
			* **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
	+ 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
	+ Use of single stain to color bacterial cell
	+ Choose one of the dyes and use the time given: Carbolfuchsin, Crystal violet, Safranin, and Methylene blue
	+ Follow the procedure on page 40-41
	+ Observe on 100X, view and draw your slides
	+ **Each student will stain 2 slides**