**Week 1: Introduction**

Learning Objectives for First Week in Lab

*Skills*

* Locate safety equipment
* Accurately pipet a given volume with one of three pipets (1 – 1000 µL)

*Cognitive*

* Recognize characteristics of synthetic biology
* Evaluate the differences between inquiry lab and CURE lab
* Measure what you know coming into the class through TOSLS survey

**Pre-Lab**

Before you come to lab:

1) Read “How to use a Pipetman” so you can be ready for lab.

<http://www.bio.davidson.edu/113/weekly_Labs/Micropipettor.pdf>

2) Answer each of these four questions in two sentences or less.

A) What is the function of the *promoter* in a gene?

B) What is the function of the *ribosomal binding site (RBS)* in a gene?

C) Define the field of synthetic biology.

D) What differences are there between an “inquiry lab” and a “CURE lab”?

**In-Lab**

During lab:

1. Design a quantitative method to verify each team member can pipet accurately using the P20, P200 and P1000.
2. Prepare a list of traits that distinguish synthetic biology from genetics or molecular biology.
3. Draw a picture of a bacterial gene that includes these components: promoter, ribosomal binding site (RBS), start codon, stop codon, transcriptional terminator. Be sure to consider the spacing of all these elements.
4. Take TOSLS survey in lab.
5. Submit CATME Team Maker data