**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

**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 are two differences 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. Submit CATME Team Maker data