**Homework 3.**

In class, we went through analyzing 16S mock community data using usearch.

Based on what you learned, analyze your 16S data for your project and answer the following questions:

a. What was the overall number reads in the file? (FYI these are 454 data so there only Forward reads)

b. What is the average EE value for the reads?

c. What is the average read length?

d. Using the following values for -fastq\_filter how many reads are retained after QC?

* -fastq\_trunclen 400 -fastq\_maxee 1.0
* -fastq\_trunclen 300 -fastq\_maxee 1.0

e. Using those same values how many OTU are recovered (after dereplicating, removing unique with <3 representatives)?

* -fastq\_trunclen 400 -fastq\_maxee 1.0
* -fastq\_trunclen 300 -fastq\_maxee 1.0

f. Showing the results from the parameters you tried (at least one must differ from above), describe what are the best length truncation and EE cutoff values to be used for your data? Why?