**Learning Objectives**

After this week’s class you are expected to able to do the following:

1. Synthesize your knowledge of the R language to write code in data science, bioinformatics, and other biological fields. This includes…
   1. Special characters and operators in R
   2. Bracket types and syntax
   3. The importance of commenting
   4. Importing, exporting, organizing, viewing, slicing, and analyzing data tables, dataframes, vectors and lists
   5. Building custom functions and customizing options in existing functions
   6. Iterating (looping) code (e.g. a “for” loop) and mapping functions onto lists
   7. Logical tests and switches (e.g., if-else statements)
2. Translate concepts into algorithms and algorithms into R-code
3. Analyze existing code for errors, improvements, and to interpret basic functionality
4. Applying your knowledge of basic R syntax in the context of novel applications and R-packages
5. Utilize help documentation and Google searches for studying novel (or forgotten) functions and syntax.