RStudio Basics
A. Console
- Where R code is executed
- Ex. file.choose()

B. **Package/help/etc.**
- Ex. Use help to look up file.choose()

C. **Environment**
- Variables

D. **Script Editor**
1. Markdown chunks
- **Visual** tab makes it easier
2. Coding chunks
- **<-** (assignment)

Create .qmd file
Render

Data
A. Data types
- numeric, integer, character (""), Boolean, etc.
B. Data Structures
- Vectors
  - Ex. c()
- Factors
- Matrix
- Table
- List
- **DATAFRAMES**
- **read.csv()**
- sd(), mean()
- t.test()
- subset()
- tapply()
- attach/detach

What kind of plot? data-to-viz

Functions
built-in
- Modify meaning via Arguments: Required, optional, default, variable
- Build your own
- for loops: repetition
- Higher order functions
  - Map, Filter, etc.

Data Wrangling
A. Slicing with [row, columns]
B. Logical operators in slices
   >,<, >=, <=, ==, **&, |**
C. **write.csv()**
D. subset(), tapply()
E. which, all(), any(),%in%

Visualization
A. Scatterplot: plot()
- Modify through arguments
- qqnorm, qqplot, qqline
B. Histogram: hist()
C. Mosaic plot: mosaicplot()
D. boxplots: boxplot()

Arguments passed

Function

Output returned

Packages
- biostats
- swirl()

They often have:
1. Own functions
2. Own data types