

READ THIS FIRST

- If you have not used Jupyter before, the **introduction** pdf. It will help you get started and give you tips for staying organized.

MODULES

The modules provide R code used to perform analyses covered in *The Basic Practice of Statistics* (7th ed., Moore, Notz, and Fligner). The modules include interactive examples using R code and real data. (The modules **do not** correspond one-to-one with the chapters in the textbook.)

MODULE INDEX

Introduction:	PDF instructions for getting you started with Jupyter
Module 1:	Covers both entering data directly into R and importing a csv file into R.
Module 2:	R functions for creating pie charts, bar charts, and histograms.
Module 3:	R functions for mean, median, quartiles, IQR, standard deviation, the summary function, and boxplots.
Module 4:	Two-variable descriptive analysis, including scatterplots and correlation.
Module 5:	Calculate probabilities for standard Normal and other Normal distributions. Find the value on a normal distribution corresponding to a selected cumulative proportion (i.e. probability).
Module 6:	Fitting regression lines. Residual plots.
Module 7:	Describing the relationship between two categorical variables. Two-way tables. Marginal and conditional distributions.
Module 8:	Generating random numbers. Selecting a simple random sample and assigning individuals to treatments for experiments.
Module 9:	Binomial Probabilities and Normal approximation.
Module 10:	Z-confidence interval, sample size calculation, and Z-test for population mean.
Module 11:	T-confidence interval, T-test, matched pairs.
Module 12:	Inference about two population means. T-test and confidence interval.
Module 13:	Inference about a population proportion. Confidence interval, sample size calculation, and hypothesis testing.
Module 14:	Inference about two population proportions. Confidence interval and hypothesis testing for the difference of two proportions.
Module 15:	Inference about two categorical variables: The Chi-square Test
Module 16:	Inference for regression. Test and confidence interval for slope parameter. Confidence interval for mean and future response.
Module 17:	One-way ANOVA. ANOVA F-test. Checking equality of variances.