Instructions for Getting Started with R

- **Watch tutorials on LinkedIn Learning (Optional)** For introductory videos, go to `www.training.it.ufl.edu`, click on the LinkedInLearning button and log on with your Gator id. Then, search for the course *Learning R* with Barton Poulson. Read or listen to the three sessions "R in context," "Installing R on your computer," "Using RStudio." In the next session, "Getting started with the R environment," listen up to where Poulson shows you how to open up a script file in RStudio. (Altogether, this is about fifteen minutes of videos.)

- **Download R and Rstudio**

  1. Download R from the web site `http://www.r-project.org` (my preferred CRAN mirror is Statlib at Carnegie-Mellon, which you can also go to directly at `http://lib.stat.cmu.edu/R/CRAN/`).
  2. Download the free Desktop version of RStudio from the web site `http://www.rstudio.com`. For the web site in September 2020, scroll to the very bottom of the page; then under Products, Open Source, click on RStudio Desktop. At next page, click on Download Rstudio Desktop, and scroll down to about the middle of the page, where a version to download is recommended for your computer.

- **Create a directory (folder) to use for R script files and data**

  1. If you know how to create a new directory (folder) using a command in your operating system, that is the preferred way. You might call the directory Rwork, for instance. If you do not know how to create a new directory, you can do this within Rstudio, as follows. Open RStudio. In the lower right panel, for instance—click on Files, then "New Folder". Enter the name of the new folder, and click Submit.
  2. Download R-intro.r (script file) and bac.txt (data file); put both files in your new folder Rwork. In the Console (lower left panel), type `getwd()` at the prompt; this will tell you the "working directory." Then use the command `setwd(‘‘Rwork’’)` to set the working directory to Rwork. OR here's another way: While you have the script file (e.g. R-intro.r) open in RStudio, click on "Session" then go to "set working directory," then "To Source file location" The essential thing is to have script files and datasets in the directory where R looks for them.

- **Run a sample script file; read in a sample dataset.** You will be doing this all semester.

  1. Open RStudio. There are four panels in a rectangular arrangement. Explore the panel menus a little. Note that the lower left panel is the Console.

You should see a ">" prompt—this is an active `R` session waiting for your commands. Type "2+2", then hit "return", and see what happens.

2. Open the script file `R-intro.r` in the upper left panel of RStudio. Position the cursor on a command line such as log(10), hit the appropriate key sequence to run this command. Key sequence for Macs is Command-Enter, and for PCs is Ctrl-Enter (Paulson goes over this in the Lynda videos.)

3. You will be downloading datasets and `R` code (or "script") files repeatedly this semester. In the script file `R-intro.r`, go to the end, and run the following two lines

```
bac.df <- read.table("bac.txt", header=TRUE)
bac.df
```

4. If you get an error message, you can check that you have placed `R-intro.r` and `bac.txt` in the correct place as follows. In the upper left panel of RStudio, click on the second item on the menu bar "Open an existing file." (Click on the yellow icon, not the scroll-down arrow.) You should see a pop-up window with the two files listed, `R-intro.r` and `bac.txt`.

5. When you're done, type `q()` to quit the `R` session, in the console, and exit RStudio.

At this point, you are ready for the `R` tutorial. For your convenience, the R commands and output from the tutorial are printed in the file `R-intro.txt`).