**Initial notes:**

**Modified this course:**

Have not taught in a while: Been doing much of our advanced courses but need to make sure students have a good background in the foundations.

Favorite course: get people excited and productive using quant methods

Hot topic today: Data science: and much of this is based on the topics we will cover (at least the statistical parts: <https://hbr.org/2012/10/data-scientist-the-sexiest-job-of-the-21st-century>

**Homework for tonight:**

Install **BOTH** R and R studio (do it in this order).

R is the statistical software (<https://www.r-project.org/>)

R studio: An ‘integrated development environment’ (IDE) for R. In other words, it is a ‘front-end’ or a user interphase which makes it easier to write syntax in R. <https://www.rstudio.com/products/rstudio/download/>

**NOTES:**

These are syntax based (vs point and click)

Forces users to kind of know what they are doing (instead of randomly selecting options)

Takes practice!! Lots of errors are the start (and even when you get better!) but the advantages outweigh the costs (w/c is the learning curve)

Advantage is that the results are easily reproducible too

**Disclaimer: R is:**

Challenging to learn—which is why a face to face course like this helps! Good to have someone to ask

Lots of little nuances which spells the difference between success, failure, and frustration (e.g., case sensitive, unhelpful help, not intuitive to some extent, etc.)

Getting more and more popular in business and academe (w/c thus makes it a good thing to learn too!)

Amazing amount of information out there on learning R. Too many maybe?

<https://www.rstudio.com/resources/videos/something-old-something-new-something-borrowed-something-blue-ways-to-teach-data-science-and-learn-it-too/>

Google is your friend (though do not be put off with some snide/snobby remarks you may come across)

**Community of researchers:**

Lots of people to follow on Twitter!

So many advances in using the software

**Focus:**

In the course, we will balance learning the statistical concepts and executing these using the software—it is not about one or the other

A way of thinking: this is part of becoming a scholar—a consumer and producer of research

Should get familiar with reading journal articles and not skipping the methods and results!!

We will do some basic data management but that’s not our focus in this class (I have a course on that too).