HW 0: Setup

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1. Join Discord & introduce yourself

Join our Discord channel. This is a student led support platform where student office hours will be held and personalized channels can be made. **This is the defacto method of communication for this class**.

a. Download the Desktop app. **You should not rely on remembering to log in using the web version.** Chances are very high that you will miss out on important announcements and bonus activities. There also is a Discord phone app that you may want to consider.
b. You are welcome to have any username you choose as long as it's suitable for school.

c. Post an introduction in the `#introductions` channel. Include the following:
  - major
  - Any pets (include pics!)
  - what fictional family would you like to belong to?
  - your biggest concern about the class

2. Make an account on Hack MD and test out the interface.

Go here, read the introduction and add your name/major

3. Install your software program of choice

R

- Free. Installation Instructions available in `lec02` from the Math 130 webpage: https://norcalbiostat.github.io/MATH130/
- Harder up front, more powerful in the end.
- Seamless integration with a multitude of other scientific analysis and reproducible reporting mechanisms.
- Becoming much more popular in all scientific fields of study. One of the primary languages for Data Science.
- Google at diagram of the `tidyverse` (a suite of functions in R). Compare it to the images of the data analysis life cycle. What sense do you get?
- Need some motivation?
  - https://www.psychologicalscience.org/observer/why-you-should-become-a-user-a-brief-introduction-to-r
  - https://osf.io/j28w7/
  - https://www.youtube.com/watch?v=jn_3N_o2d6Q
- On campus resources
  - Introduction to R (MATH 130) 1 unit CR/NC
  - Data Science Initiative workshops, talks, open drop in analysis time.
- Off Campus resources (a few)

- Chico R Users Group
  * Meetup
  * Google l-serv
- Help outside of class
- R Examples Repository (This site was also built using R Markdown, is open source and a fabulous example of reproducible research!)

SPSS

- Purchase v26 from http://www-03.ibm.com/software/products/en/spss-stats-gradpack for $50 for 6mo rental (2019 prices)
- Point and click, but can save code and write scripts.
- Stand alone program. No integration. Licenses are not cheap.
- Wildcat computing support for SPSS
- Off Campus resources
  - Kent State University Tutorials: https://libguides.library.kent.edu/SPSS/home
  - UCLA Institute for Digital Research and Education: https://stats.idre.ucla.edu/spss/
  - Recommended selection of YouTube videos https://www.youtube.com/results?search_query=andy+field+spss+tutorials

SAS? STATA? Python?

Yes, yes and yes. You can use any software program you want.

- SAS has only now working on literate and integrated programming by using Jupyter notebooks and SAS University Edition (free)
- Stata has a few user written packages that allow for the integration of LaTeX or markdown into your code document.
- Python is the other primary language for Data Science.

4. Organize your working directory

Using a consistent folder structure across your projects will help keep things organized, and will also make it easy to find/file things in the future. This can be especially helpful when you have multiple projects. In general, you may create directories (folders) for **scripts**, **data**, and **documents**.

You need to choose a naming convention for your class folder and stick with it. Recommended options are:

- ALL CAPS (MATH615)
- no caps (math615)
- snake_case (math_615)
- CamelCase (Math615)

Call this working directory `math615`, and create the four subfolders: `data`, `scripts`, `documents` and `project`.

You will put all files related to this class in here. For example lecture notes and the sylalbus go in the `documents` folder, homework code files in the `scripts` folder, data and codebook in, you guessed it, the `data` folder, and code specifically for your project in the `project` folder.

This means when you download a file, right click and "Save as" or "Save target as" and **actively choose** where to download this file. Do not let files live in your downloads folder.

Your working directory should now look similar to this:

5. Connect to Poll Everywhere

- https://pollev.com/drd
- I have already registered you for Poll Everywhere by connecting it to Blackboard.
- Use your student email to log in and use the password reset link to create a new password. Let me know if you can't get registered. > **You do not need to create more than one PollEverywhere account**

Test out your connection by going to [this link] and answering a question.

Need additional support? Wildcat Computing Support link: https://www.csuchico.edu/wcs/polleverywhere.shtml

6. Buy the textbook

Practical Multivariate Analysis, 6th ed by Afifi, May, Donatello, Clark. [Link]

There are at least 3 in the library, and I have a few I can loan out also.

7. Student hours preferences

Help me find the best time to hold student hours. This will be my time to dedicate to help you you all. These are **your** hours to get time with me 1:1, to ask additional questions, to get extra help, to just shoot the breeze and hang out.

Fill out this form to share with me your availability: https://forms.gle/v4anqiJLwB2WEBqX8

8. Help yourself find course materials easier

Bookmark the class website.

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