

Day 1, Session 1: Overview

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EPI/BIOST Bootcamp 2016

23 September 2016

Welcome!

- Welcome to the first EPI/BIOST Bootcamp!
- For today:
 - Our backgrounds
 - Introduction to course content for EPI 511 and BIOST 511
 - Overview of this course
 - Some skills and resources for success in graduate school

Our backgrounds: Gillian

Our backgrounds: Brian



- Third year PhD student, Biostatistics
- Past TA for R in BIOS T 511, 512, 517, 518
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Intro to course content: EPI 511

Intro to course content: BLOST 511 (from Jim Hughes, PhD)

- Objective: provide students with an understanding of basic concepts and methods of statistical inference in the health sciences
- Some major topics:
 - Data description, exploratory data analysis
 - Basic issues in study design
 - Probability concepts and models
 - Statistical inference - estimation and hypothesis testing
 - Categorical data analysis
 - Introduction to regression analysis

Intro to course content: BLOST 511

- Only pre-requisite is basic algebra
- However, R will be used to teach some of the concepts and analyze data
- Depending on the instructor, will cover logs/exponents in data analysis

Overview of the bootcamp

- Today: overview, etc
- 26 September: Algebra and more!
 - Order of operations and negative numbers
 - Fractions
 - Algebra
 - Graphs
 - Logs and exponents
 - Word problems etc

Overview of the bootcamp

- 27 September: R!
 - Using scripts, the console, and simple tasks
 - Installing and loading packages. Case study: `uwIntroStats`
 - Data types, data structures
 - Loading data and running scripts

Skills for success: class preparation

- Do readings (lecture notes, textbook) before coming to class
- Start homework early
- Go to class, and participate if possible!

Skills for success: study groups

- Start early
- Try to form study groups with people of mixed backgrounds and programs
- Keep tabs on how members of the group are performing
- Be careful not to plagiarize

Skills for success: office hours

- Not just for homework help!
- Bring corrected tests and homework to review
- Go over concepts in the reading

Skills for success: bolstering basic skills

- We're providing a refresher, but you may need outside help
- Seek tutoring (early!)
- Use online resources (e.g. Khan Academy)

Skills for success: quarters move fast!

- Don't put off homework/reading/studying
- Start the process to set up tutoring early
- The first midterm tends to be a wake-up call, but the pace picks up after it — no time to catch up
- Second quarter assumes mastery of the first quarter's material

Skills for success: language and wording

- Epi, particularly, is very language-heavy
- Pay attention to how specific words are used
- If you are not fluent in English, consider setting up additional help early

Skills for success: tips on coming recently from undergrad

- If coming from semester school: quarters are much faster!
- Imposter syndrome — remember that the UW chose you!
- Balancing an RA/TA with coursework will likely be an adjustment
- UW's approach may be different from that of your undergrad

Skills for success: tips if you've been out of school for a while

- Schedule yourself more time at first than you might expect you need to complete work
- The field may have advanced since you were in school
- UW's approach may be different than where you worked or earned your Master's

Homework for the weekend

- Visit the R project page at <https://cran.r-project.org/> and download R
- Visit the RStudio page at <https://www.rstudio.com/> and download RStudio
- Visit the GitHub page for this bootcamp at <https://github.com/UW-EPI-BIOST-PREP/Epi-Biost-Workshop2016>
 - Download the slides and other materials using the green “Clone or Download” button (choose download)

Homework for the weekend

- Visit the uwIntroStats page at <http://uwintrostats.org/index.asp> and download the package
- If you have trouble with any of the steps (besides GitHub), there are help videos on the uwIntroStats website

Homework for the weekend

- Install the uwIntroStats package:
 1. Open RStudio once it and R are installed
 2. Go to the “Tools” menu, and select “Install Packages...”
 3. In the dropdown menu for “Install from:”, select “Package Archive File (.zip, .tar.gz)”
 4. Navigate to where uwIntroStats downloaded and select the package file
 5. Click “Install” if necessary