Day 1, Session 1: Overview

Gillian Tarr and Brian D. Williamson

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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 BIOST 511, 512, 517, 518

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Intro to course content: EPI 511

Intro to course content: BIOST 511

- 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: BIOST 511

- Only pre-requisite is basic algebra

- However, R will be used to teach some of the concepts and analyze data

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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

Exercises 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)

Exercises 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

Exercises 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