EPI/BIOSTAT Math and R Skills Preparatory Workshop

Jessica Williams-Nguyen and Brian Williamson

22, 25, 26 September, 2017

This workshop is offered by the [University of Washington School of Public Health](http://sph.washington.edu/).

Taught by

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and

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# Course Goals

* [pdf](RRcourse_goals.pdf)
* [html](RRcourse_goals.html)
* [MS Word](RRcourse_goals.docx)
* [Rmd Source](RRcourse_goals.Rmd)

# Homework

* [pdf](homework.pdf)
* [html](homework.html)
* [MS Word](homework.docx)
* [Rmd Source](homework.Rmd)

# Cheat Sheets

[RStudio](https://www.rstudio.com/resources/cheatsheets/).

# Course Syllabus and Lecture Materials

## Day 1, 22 September 2017, 8am-12pm

**Lecture 0: Overview and Skills for Success, Jessica and Brian, 45 min** [pdf](placeholder), \* Introduction to the workshop, EPI/BIOST courses \* Some skills for success in graduate school

**Lecture 1, Order of operations, Brian, XX min** [pdf](placeholder), \* Placeholder list

**Lecture 2: Fractions, Percentages, and Decimals, Jessica, XX min** [pdf](placeholder), \* Another placeholder list

**Lecture 3: Algebra, Jessica, XX min** \* Another placeholder list

## Day 2, 25 September 2017, 2-5:30pm

**Lecture 4: Graphs, Brian, XX min**

**Lecture 5: Logarithms and Exponents, Brian, XX min**

**Lecture 6: Word Problems, Jessica, XX min**

## Day 3, 26 September 2017, 8-10:30am

**Lecture 7: Installing R and RStudio, Brian, XX min (much live demo)**

**Lecture 8: R basics, Brian, XX min (much live demo)**

**Lecture 9: The RStudio environment, Brian, XX min (much live demo)**

**Lecture 10: Accessing help, Brian, XX min (much live demo)**

# Recommended Reading/Browsing

## General

* [Christopher Gandrud, Reproducible Research with R and Rstudio, (2015)](http://www.amazon.com/Reproducible-Research-Studio-Second-Chapman-ebook/dp/B010ACWGBI/ref=tmm_kin_title_0?_encoding=UTF8&sr=&qid=)
* [Hadley Wickham, R Packages (2015)](http://www.amazon.com/R-Packages-Hadley-Wickham-ebook/dp/B00VAYCHL0/ref=pd_sim_351_6?ie=UTF8&refRID=1E8HS30WBHRCW45SEWXM)
* [Yihui Xie, Dynamic Documents with R and knitr, (2015)](http://www.amazon.com/Dynamic-Documents-knitr-Second-Chapman-ebook/dp/B00ZBYPJEW/ref=tmm_kin_title_0?_encoding=UTF8&sr=&qid=)
* [Karl Broman's Tools for RR Course](http://kbroman.org/Tools4RR/)