Defense Against the Dark R’s Syllabus

Psychology Room 508 – Spring 2019

# Instructor Information

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| Instructor | Email | Office Location |
| Dustin Haraden | [Haraden2@illinois.edu](mailto:Haraden2@illinois.edu) | PSYCH 738 |

# General Information

## Description

A foundation in organizing your R projects and combatting informal practices. Introduction and exploration of Open Science within a Clinical/Community framework.

## Expectations and Goals

The goal of this course is to introduce students to effective strategies and practices for organizing their research projects within R. The focus will revolve around promoting Open Science practices as they apply to own interests. I will introduce a workflow within R that will maximize reproducibility and attempt to future proof analyses (take that future Dustin!).

# Course Materials

## Required Materials

* Computer with up to date R & R-Studio and associated libraries
  + As of the writing of this syllabus: R – Version 3.5.2 (Eggshell Igloo); R-studio – Version 1.1.463
* OSF account (will register in class)
* GitHub account (will register in class)
* GitHub Desktop
* Laughter (WARNING: Instructor will make lame dad jokes)
* Curiosity
* Coffee

## Optional Materials

* Light Saber
* Elder Wand
* T.A.R.D.I.S./Sonic Screwdriver
* DeLorean
* One Ring to Rule Them All

## Course Website

The website and all associated materials will be housed on GitHub or OSF

<https://github.com/dharaden/dark-r>

<https://osf.io/exstg/> - Resources

## Recommended Text

**R for Data Science**

*Hadley Wickham*, <http://r4ds.had.co.nz/> (free)

**R Markdown: The Definitive Guide**

Yihui Xie, J. J. Allaire, Garrett Grolemund; <https://bookdown.org/yihui/rmarkdown/> (free)

**Advanced R**

*Hadley Wickham,* [*http://adv-r.had.co.nz/*](http://adv-r.had.co.nz/)(free)

**The Seven Deadly Sins of Psychology: A Manifesto for Reforming the Culture of Scientific Practice**

*Chris Chambers* (check it out from the library & give it a read when you can)

# Course Schedule

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| Week |  | Topic |
| 1/18/19 |  | Introduction to materials/topics  Registration Github/OSF |
| 1/25/19 |  | Open-Science Manuscript Life-Cycle  Pre-Registration & Registered Reports  Intro to R |
| 2/1/19 |  | Setting workflow in R  Github Integration - I |
| 2/8/19 |  | Github Integration – II  OSF Integration |
| 2/15/19 |  | Useful libraries  Enter the Tidyverse |
| 2/22/19 |  | Sharing Projects  Technical Challenge |
| 3/1/19 |  | Intro to PA-PA-JA |
| 3/8/19 |  | *Recruitment Weekend – NO MEETING* |
| 3/15/19 |  | Much more Papaja |
| 3/22/19 |  | *SPRING BREAK – NO MEETING* |
| 3/29/19 |  | *ADAA Conference – NO MEETING* |
| 4/5/19 |  | Creating a Website |
| 4/12/19 |  | Resources – The Twittersphere |
| 4/19/19 |  | Tidyverse Battles |
| 4/26/19 |  | TBD |