

PSQF 6250: Computer Packages for Statistical Analysis

Spring 2019 - Online Course

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Virtual Office Hours: T 12:30 pm to 2 pm or By appointment

Department: Psychological and Quantitative Foundations, 361 LC

DEO: Dr. Ali, 361 LC



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Schedule

Week 1: January 14 - January 20

Topics:

Reproducible Research; Markdown; Installing R

Readings:

R for Data Science – Chapter 27

Homework:

Assignment 1 – Due January 31st

Week 2: January 21 - January 27

Topics:

Graphics with R; R Basics

Readings:

R for Data Science – Chapters 1 – 4

Homework:

Week 3: January 28 - February 3

Topics:

R Scripts; Data Munging

Readings:

R for Data Science – Chapters 5 – 6

Homework:

Assignment 2 – Due February 14th

Week 4: February 4 - February 10*Topics:*

Exploratory Data Analysis

Readings:

R for Data Science – *Chapter 7; 8 (opt)*

Homework:

Assignment 3 – **Due February 22nd**

Week 5: February 11 - February 17*Topics:*

Data Import; Restructuring Data; Joining Data

Readings:

R for Data Science – *Chapters 11 – 13*

Homework:

Assignment 4 – **Due March 8th**

Week 6: February 18 - February 24*Topics:*

Linear Model Building

Readings:

R for Data Science – *Chapters 22 – 24*

Homework:

Week 7: February 25 - March 3*Topics:*

Model Assumptions

*Readings:**Homework:*

Assignment 5 – **Due March 26th**

Week 8: March 4 - March 10*Topics:*

Other Models

*Readings:**Homework:*

Assignment 6 – **Due April 10th**

Week 9: March 11 - March 17*Topics:*

Reproducible Tables

Readings:

Homework:

Project Proposal – **Due April 4th (firm deadline)**

Spring Break: March 18 - March 24 – No Class

Week 10: March 25 - March 31

Topics:

Interactive Graphics

Readings:

Homework:

Week 11: April 1 - April 7

Topics:

Creating R Functions

Readings:

Homework:

Assignment 7 – **Due April 20th**

Week 12: April 8 - April 14

Topics:

Creating R Functions

Readings:

Homework:

Week 13: April 15 - April 21

Topics:

Resampling and Bootstrapping

Readings:

Homework:

Week 14: April 22 - April 28

Topics:

Monte Carlo Simulation with R

Readings:

Homework:

Assignment 8 – **Due May 6th**

All homework assignments **due May 6th**

Week 15: April 29 - May 5*Topics:*

Version Control

Readings:

git with github

git the simple guide

Homework:

Project due by May 9th at 11:59 pm