DRAFT SYLLABUS – SUBJECT TO CHANGE

PPHA 30536

Data and Programming for Public Policy II — R

Harris School of Public Policy Professor Maggie Shi University of Chicago Office: Keller 3043

PPHA 30536 Office hours: By appointment
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Teaching Assistants:

XX

Office hours: XX

Email: XX

Email:

Information about this course

Background and Goals

This is the second course in the "Data and Programming for Public Policy" R sequence, which works towards the Certificate in Data Analytics. In this course, students will expand the programming skills developed in PPHA 30535 and move towards using R in practical applications. The goals of this course are: (1) go from applying R to structured questions with clearly-defined answers to using R to solve broad questions; (2) deepen existing skills; (3) broaden into new skills that require a higher level of R proficiency; and (4) prepare for the post-graduation job market.

Prerequisites

The prerequisite for this course is PPHA 30535, "Data and Programming for Public Policy I – R Programming."

Schedule

Lecture will meet Tuesdays and Thursdays from 2:00-3:20PM in Keller 0021. Each class will typically consist of two parts: a lecture and a live lab where we will work through examples in groups.

Software and Resources:

There are three pieces of software that are required for this class, all of which are free:

- The R Studio platform
- The GitHub Desktop application
- The Anaconda Python distribution (for the two lectures on Python)

Additional References:

Wickham and Grolemund, R for Data Science

Topics

- 1. Generalization
- 2. Messy data
- 3. Spatial data
- 4. Shiny
- 5. Webscraping
- 6. Natural language processing

Grading policies and procedures

Assignments Your grade will consist of four assignments and a project. All code must be turned in as plain R files (R-Markdown is not accepted) using GitHub Classrooms and Gradescope, no exceptions. Dates below are listed as *date given – date due*.

- 1. Coding and Data: XX
- 2. Spatial Data: XX
- 3. Shiny: XX
- 4. Text Processing: XX
- 5. Final Project (due dates):
 - a. Submit list of group members: XX
 - b. Project proposal: XX
 - c. In-class presentations: XX and XX

Assignments are due **before midnight** on the date listed. Your final grade will be calculated as 45% assignments, 40% final project, and 15% in-class live labs (graded for completion). This class requires a 60% or above to pass, and is not curved.

All passing grades will use the following intervals: **A** [96% - 100%] **A-** [91% - 96%) **B+** [86% - 91%) **B** [81% - 86%) **B-** [60% - 81%).

Late Submissions Every student has two 12-hour extensions for problem sets. Those extensions will be *automatically applied* to any late work, and require no excuse to be given. To turn in late work, simply upload it to Gradescope as usual. Extensions are used in complete blocks of time - e.g. turning an assignment in 12 hours and 30 minutes late will use two extensions. Late tokens may not be used for the final project or for live labs. Once your extensions are used up for the quarter, all assignments will be penalized at a rate of 5% per 12-hour block. Only issues of sufficient magnitude that academic affairs is involved in the discussion can qualify for exceptions.

In-Class Labs The live lab assignment will be posted during the class and must be uploaded to Gradescope before the end of the class period. The labs will be graded based on completion, and students will receive full points if they demonstrate that they have made a good-faith attempt at the assignment. Each lab is worth 10 points, and the total is calculated out of 140 points.

Regrade Requests Regrade requests must be made within one week (7 days) of when the student has received the graded assignment or exam and must be accompanied by a 1-page written statement documenting the reason for the request. The grading team reserves the right to regrade the entire assignment, with the student's understanding that the final score after regarding could lower the student's grade.

Classroom environment and accessibility

In-class attendance is expected, as the live labs will be graded for completion. Lecture notes and slides will be uploaded to the Canvas throughout the quarter. If you require any accommodations for this course, you are encouraged to contact Student Disability Services as soon as possible. To receive reasonable accommodation, you must be appropriately registered with Student Disability Services and provide the instructor with a copy of your Accommodation Determination Letter so that we may discuss with how your accommodations may be implemented in this course.

General Resources Available to Students

- Harris Academic Support Programs and Handbook
- Student Wellness
- <u>University Learning Resources</u>

Harris School and University of Chicago Policies

- Harris School Policies
- University General Policies
- University Academic Polices
- Policies on audio and video recordings and deletion.