CSDE 502 Winter 2022
Syllabus

Instructor and Office Hours

Phil Hurvitz
Raitt Hall 218 F
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Office hours by appointment

Time and Location

Friday 10:30 AM to 12:20 PM
Zoom: https://washington.zoom.us/j/97609440755

Course Description

This is a required course for students wishing to obtain a Demographic Methods Graduate Certificate from CSDE (https://csde.washington.edu/training/demographic-certificate/). However, it is open to all interested students.

This course is meant to fill a perceived curriculum gap between methods courses that emphasize study design and statistics courses that teach statistical analysis. It focuses on applied methods for data preparation and will introduce the following topics: data management and documentation, data cleaning and variable creation, summarizing variables, working with demographic data, and reproducibility. In short, this course teaches introductory "data wrangling" focused primarily on demographic analysis applications.

The course is designed to be closely coupled with SOC/CSSS/CSDE 533 A (Research Methods in Demography). The techniques introduced in CSDE 502 will directly support the analytics taught in CSDE 533. Both courses will use R in the RStudio integrated development environment (IDE). In this course, particular emphasis will be placed on documentation to support transparency and reproducibility using the RMarkdown package.

Pre-requisites

Introductory graduate level research methods and statistics, basic knowledge of R and RStudio. See https://csde.washington.edu/training/demographic-certificate/csde-502/#WinterQuarter for more details.

Requirements and Grading

This is a 2 credit, pass/fail course. In order to pass the course, students must satisfactorily complete the homework assignments and attend class. There will be weekly lectures and assignments to be completed outside of scheduled class times.

Dates

January						
Su	Mo	Tu	We	Th	Fr	Sa
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2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

February						
Su	Mo	Tu	We	Th	Fr	Sa
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

March						
Su	Mo	Tu	We	Th	Fr	Sa
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6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Course Outline

Week 1: Jan 7	Quick introduction to CSDE computing Quick introduction to RStudio, RMarkdown, file systems
Week 2: Jan 14	Introduction/review of basic R: • data types • data structures • brief introduction to tidyverse • pipes (magrittr, tidyverse, native pipes) Data • Employee turnover data
Week 3: Jan 21	Introduction/review of basic Rmarkdown: • code blocks • graphs • tables • equations • cross-references Keyring (storing/accessing secrets such as passwords) Data • Human Mortality Database • Human Fertility Database
Week 4: Jan 28	R environments R functions Sampling in R
Week 5: Feb 4	Git: file versioning and code repository
Week 6: Feb 11	Reading labelled data Metadata on data sets Ccmpp: Cohort Component Method of Population Projection Data: • Add Health public-use data
Week 7: Feb 18	Creating value labels Tabulation (summarizing data)
Week 8: Feb 25	Scale scoring Reordering values
Week 9: Mar 4	Miscellaneous data processing
Week 10: Mar 11	Miscellaneous data processing, continued

Class email list: csde502a_wi22@uw.edu
Please send any questions you have about the course materials, assignments, programming, etc. to the class e-mail list. It is likely that more than one person will have the same question, therefore all students will be able to benefit from the question/answer/discussion. Questions sent directly to the instructor may be answered on the email list (with sender's identity removed). E-mail list archives are available at https://mailman11.u.washington.edu/mailman/private/csde502a_wi22/.

Class materials can be found in the course's Canvas site: https://canvas.uw.edu/courses/1515226.

Assignments
Assignments are due the Thursday at 09:00 AM the week following when the assignment was distributed. *Late work will not be accepted without previous agreement by the instructor*. Each assignment will detail the file format to be submitted. Any assignment files to be turned in must be submitted by uploaded using Canvas, https://canvas.uw.edu/courses/1353992. Do not send any assignment materials to the instructor by e-mail.

Religious Accommodation
Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Religious Accommodations Policy (https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form (https://registrar.washington.edu/students/religious-accommodations-request/).

Conduct
The University of Washington Student Conduct Code (WAC 478-121) defines prohibited academic and behavioral conduct and describes how the University holds students accountable as they pursue their academic goals. Allegations of misconduct by students may be referred to the appropriate campus office for investigation and resolution. More information can be found online at https://www.washington.edu/studentconduct/.

Access and Accommodations
Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu. DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of

Washington to create inclusive and accessible learning environments consistent with federal and state law.

Academic Integrity
The University takes academic integrity very seriously. Behaving with integrity is part of our responsibility to our shared learning community. If you are uncertain about if something is academic misconduct, ask me. I am willing to discuss questions you might have.

Acts of academic misconduct may include but are not limited to:

- Cheating (working collaboratively on quizzes/exams and discussion submissions, sharing answers and previewing quizzes/exams)
- Plagiarism (representing the work of others as your own without giving appropriate credit to the original author(s))
- Unauthorized collaboration (working with each other on assignments)

Concerns about these or other behaviors prohibited by the Student Conduct Code will be referred for investigation and adjudication by the office of the Dean of Arts and Sciences.

Students found to have engaged in academic misconduct may receive a zero on the assignment (or other possible outcome).

Safety
Call SafeCampus at 206-685-7233 anytime – no matter where you work or study – to anonymously discuss safety and well-being concerns for yourself or others. SafeCampus's team of caring professionals will provide individualized support, while discussing short- and long-term solutions and connecting you with additional resources when requested.