

PSC 302

Research Methods in Political Science

Dr. Austin Horng-En Wang

Spring 2021

MoWe 1:00 PM - 2:15 PM

Classroom: FDH 101

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Office: WRI – A210

Virtual Office Hour: Th Fr 9:30 am – 11:00 am, and by appointment

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TA Office: WRI – A211

TA Virtual Office Hours: Tu 12:00 pm – 1:00pm, We 11:30 am – 12:30 pm

Course Description

You observed an interesting pattern in politics. You want to explain this pattern. You do not know how to start, but you want to dig up something more than the commentary on the newspaper. You want to study this pattern systematically and scientifically, and aim at predicting the future. This course is the first step to realize your ambition.

This course is an upper-level course focusing on research design and quantitative analysis in political science. You will learn how to ask a good research question, collect and clean the data you need, and conduct the analysis. Fortunately, you will learn the coding skills in both Excel and R (Rstudio). You will experience the basic of data structure, such as logic and for loop. After this class, you should be able to read journal articles using quantitative analysis, criticize the misuse of numbers by pundits, and conduct and publish the research projects that you are interested in.

Course Objectives

This course supports several University Undergraduate Learning Outcomes, including:

- Transfer knowledge and skills gained from general and specialized studies to new settings and complex problems.

- Recognize the complexity of problems, and identify different perspectives from which problems and questions can be viewed.
- Demonstrate general academic literacy, including how to respond to the needs of audiences and to different kinds of rhetorical situations, analyze and evaluate reasons and evidence, and construct research-based arguments using Standard Written English.
- Demonstrate awareness of one's own place in and effect on the world.

Course Format

This course is currently assigned to be taught in-person. Please come to FDH 101 on time. Since we will do many coding practices during the class, you are recommended to bring your own laptop to the class. You can also use the computer in BEH 102 and complete your assigned work. I will also try to record the lecture. During the coding, it is fine to discuss and collaborate with your classmates. But please write in your own code.

Required Textbooks

Paul M. Kellstedt, and Guy D. Whitten. 2018. *The Fundamentals of Political Science Research* 3rd Edition. Cambridge University Press. ISBN: 978-1316642672 (KW hereafter)

Grades and Exams

Your grade is based on the quality of your performance on three dimensions:

- **Lab Homework 45% (4% × 13 = 52% but at most you can get 45%)**

In this semester, there are 13 lab sessions. In each lab session, you are required to follow the instruction (posted on the Webcampus/Files/Lab X) and practice the coding in Excel and R. Our TA will help you for any question. Besides, you are free to collaborate with your classmates during the lab session.

The lab homework is not really “home”work. It will be composed of some requests (uploading files/codes) and some calculations. The questions are the extension of the lab instruction, so you are expected to complete and submit them during the lab session. **You can get at most 4% for each homework submission**, but overall you can get at most 45% in this section. Your points will be added up to 45%.

During the lab session, you can use your own laptop. Both Excel and R are free software. You can download Excel (Microsoft Office) through the UNLV Software website (<https://www.it.unlv.edu/software/directory/microsoft-office>). And you can download R (and free version R Studio) here (<https://www.rstudio.com/products/rstudio/download/>). I do not assume you have a laptop. That’s why we will be in the computer lab and complete your homework during the lab session.

- **Midterm Exam, March 8, 2021: 20%**

An in-class, hour-long, open-book examination which you will succinctly demonstrate what you have learned. The exam will include multiple choices, calculations, short answers from the reading materials, what I taught in class, and the lab sessions.

- **Final Exam, TBD: 35%**

Another in-class, hour-long, open-book examination which you will succinctly demonstrate what you have learned after the midterm examination. The exam will include multiple choices, calculations, short answers from the reading materials, what I taught in class, and the lab sessions.

Make-up exams will not be given except in the case of extreme circumstances. The student must be able to provide documentation that the absence is for a reason recognized by the university (e.g., illness, death in the family, observance of a religious holiday) and make arrangements with me **prior** to the scheduled exam date. If it is absolutely impossible to make prior arrangements with me, students must contact me as soon as possible about the situation. Students who represent UNLV at any official extracurricular activity shall also have the opportunity to make up assignments, but the student must provide an official written notification to the instructor no less than one week prior to the missed class(es). **Please notify me of any planned absences for religious holidays by Jan 30 2021.**

Subject to Change

I reserve the right to modify the course syllabus. Students will be responsible for knowing any changes made to the syllabus during class time whether they were in attendance or not.

Rebelmail

By policy, faculty and staff should e-mail students' Rebelmail accounts only. Rebelmail is UNLV's official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu.

Course Schedule

Week 1

1/20 Lab 0
Check your computer
Look at the data and save an Excel file
Read the syllabus

Week 2

1/25 **Think politics through the lens of science**
KW, Chapter 1

1/27 Lab 1 HW 1
SUM
Sort
Filter
IF

Week 3

2/1 **Theory Building**
KW, Chapter 2

2/3 Lab 2 HW 2
Data Clean and Combination, part 1
Replace
VLOOKUP
IF(IF)

Week 4

2/8 **Causality**
KW, Chapter 3

2/10 Lab 3 HW 3
Data Clean and Combination, part 2
Variable Name
CONCATENATE
LEFT and RIGHT and MID
FIND

Week 5

2/15 **President's Day, no class**

2/17 Lab 4 HW 4
Introduction to R and Rstudio
Load and Save files

Week 6

2/22 **Research Design – Experiment or Not?**
KW, Chapter 4

2/24 Lab 5 HW 5
Create New Variables

	Create New Dataframe Generate Numbers IF(IF))	
Week 7		
3/1	Measurement KW, Chapter 5	
3/3	Lab 6 Library() For For((For)) Head	HW 6
Week 8		
3/8	Midterm Exam	
3/10	Lab 7 recode cbind rbind ANES2016, “User’s Guide and Codebook for the ANES 2016 Time Series Study”, https://electionstudies.org/data-center/2016-time-series-study/	HW 7
Week 9		
3/15	Spring Break, no class	
3/17	Spring Break, no class	
Week 10		
3/22	Descriptive Analysis KW, Chapter 6	
3/24	Lab 8 summary table describe	HW 8
Week 11		
3/29	Data Visualization KW, Chapter 6	
3/31	Lab 9 ggplot2 Pie Chart Histogram Boxplot	HW 9
Week 12		
4/5	Hypothesis Testing – Normal Distribution KW, Chapter 7 (here comes to the dark side...)	
4/7	Lab 10	HW 10

Generate a normal distribution
Central Limit Theorem

Week 13

4/12 **Hypothesis Testing – Chi-Squared Test**
KW, Chapter 8.1-8.4

4/14 Lab 11 HW 11
Crosstable
prop.table
chisq.test
stargazer

Week 14

4/19 **Hypothesis Testing – T-Test and Correlation Test**
KW, Chapter 8.4-8.5
Read: <http://www.tylervigen.com/spurious-correlations>

4/21 Lab 12 HW 12
t.test
cor.test
Correlation Table and advanced

Week 15

4/26 **Simple Regression**
KW, Chapter 9

4/28 Lab 13 HW 13
Scatterplot
lm()
visualization of linear regression

Week 16

5/3 **Review Session**
Squire, Peverill. 1988. "Why the 1936 Literary Digest Poll Failed." *The Public Opinion Quarterly* 52(1): 125–133.
Pew Research Center. 2014. "Political Polarization in the American Public"
<https://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/>

5/5 **Lab Review Session**
You are a master of R now, be proud of yourself.

Week 17

5/11 **Final Exam** TBD

Classroom Conduct

Students have a responsibility to conduct themselves in class and in the libraries in ways that do not interfere with the rights of other students to learn or of instructors to teach. Actually, there is scientific evidence that using laptop in the classroom will influence yourself and classmates nearby you (shown below). If your laptop content indicates a lack of attentiveness to lecture or your laptop usage disturb others, I will ask you to leave. Undoubtedly, electronic devices may not be used during exams. Recording devices may not be used at any time. Finally, show respect for the range of views in the reading materials and fellow students.

Sana, F., Weston, T., & Cepeda, N. J. (2013). Laptop multitasking hinders classroom learning for both users and nearby peers. *Computers & Education*, 62, 24-31.

Hembrooke, H., & Gay, G. (2003). The laptop and the lecture: The effects of multitasking in learning environments. *Journal of computing in higher education*, 15(1), 46-64.

Public Health Directives

Face coverings are mandatory for all faculty and students in the classroom. Students must follow all active UNLV public health directives while enrolled in this class. UNLV public health directives are found at <https://www.unlv.edu/coronavirus/health-requirements>. Students who do not comply with these directives may be asked to leave the classroom. Refusal to follow the guidelines may result in further disciplinary action according to the UNLV Code of Student Conduct, https://www.unlv.edu/sites/default/files/page_files/27/StudentConduct-Code.pdf, including being administratively withdrawn from the course.

Academic Misconduct

Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility, and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling at UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. I reserve the right to have students' materials submitted electronically and assessed by plagiarism detection software. Plagiarism of any form will result in a failing grade for the course, and I will file a case with the Office of Student Conduct. See the Student Academic Misconduct Policy (approved December 9, 2005) located at:

<https://www.unlv.edu/studentconduct/student-conduct>

If you find this paragraph, it means that you really read this syllabus, as is assigned in the first class. To prove that you read this syllabus, you should send an email to my Rebelmail account with your Full name as the subject before 8:00am, Jan 31, 2021. After I replied to your mail as a confirmation, you will receive extra 2 points to your final grade at the end of this semester. Hooray.

Copyright

The University requires all members of the University Community to familiarize themselves and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: <http://provost.unlv.edu/copyright/statements.html>.

Disability Resource Center (DRC)

The UNLV Disability Resource Center (SSC-A, Room 143, <https://www.unlv.edu/drc>, telephone 702-895-0866) provides resources for students with disabilities. Students who believe that they may need academic accommodations due to injury, disability, or due to pregnancy should contact the DRC as early as possible in the academic term. A Disabilities Specialist will discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours, so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.

Final Examinations

The University requires that final exams given at the end of a course occur on the date and at the time specified in the Final Exam schedule. The Final Exam schedule is typically available at the start of the semester, and the classroom locations are available approximately one month before the end of the semester. See the Final Exam Schedule, <https://www.unlv.edu/registrar/calendars>.

Identity Verification in Online Courses

All UNLV students must use their Campus-issued ACE ID and password to log in to WebCampus-Canvas.

UNLV students enrolled in online or hybrid courses are expected to read and adhere to the Student Academic Misconduct Policy, <https://www.unlv.edu/studentconduct/misconduct/policy>, which states that “acting or attempting to act as a substitute for another, or using or attempting to use a substitute, in any academic evaluation or assignment” is a form of academic misconduct. Intentionally sharing ACE login credentials with another person may be considered an attempt to use a substitute, and could result in investigation and sanctions, as outlined in the Student Academic Misconduct Policy.

UNLV students enrolled in online courses are also expected to read and adhere to the Acceptable Use of Computing and Information Technology Resources Policy, <https://www.it.unlv.edu/policies/acceptable-use-computing-and-information-technology->

resources-policy, which prohibits sharing university accounts with other persons without authorization.

To the greatest extent possible, all graded assignments and assessments in UNLV online courses should be hosted in WebCampus-Canvas or another UNLV-managed platform that requires ACE login credentials for access.

Incomplete Grades

The grade of “I” (Incomplete) may be granted when a student has satisfactorily completed three-fourths of course work for that semester/session, but cannot complete the last part of the course for reason(s) beyond the student’s control and acceptable to the instructor, and the instructor believes that the student can finish the course without repeating it. For undergraduate courses, the incomplete work must be made up before the end of the following regular semester. Graduate students receiving “I” grades in 500-, 600-, or 700-level courses have up to one calendar year to complete the work, at the discretion of the instructor. If course requirements are not completed within the period indicated, a grade of “F” will be recorded, and the student’s GPA will be adjusted accordingly. Students who are fulfilling an Incomplete grade do not register for the course, but make individual arrangements with the instructor who assigned the “I” grade.

Religious Holidays Policy

Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the end of the first two weeks of classes, **January 30, 2021**, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university which could have been avoided. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=4&navoid=164>.

Tutoring and Coaching

The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit <http://www.unlv.edu/asc> or call 702-895-3177. The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of SSC A (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TBE second floor.

UNLV Writing Center

One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 895-3908. The student’s Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: <http://writingcenter.unlv.edu/>

Library Resources

Librarians are available to consult with students on research needs, including developing research topics, finding information, and evaluating sources. To make an appointment with a subject expert for this class, please visit the Libraries' Research Consultation website, <https://guides.library.unlv.edu/appointments/librarian>. You can also ask the library staff questions via chat and text message at <https://ask.library.unlv.edu/>.

Missed Classwork

Any student missing class, quizzes, examinations, or any other class or laboratory work because of observance of religious holidays will be given an opportunity during that semester to make up the missed work. The make-up opportunity will apply to the religious holiday absence only. It is the responsibility of the student to notify the instructor within the first 14 calendar days of the course for Fall and Spring courses (except for modular courses), or within the first 7 calendar days of the course for Summer and modular courses, of their intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit the Missed Work policy, under Registration Policies, on the Academic Policies webpage, <https://catalog.unlv.edu/content.php?catoid=29&navoid=7326>.

In accordance with the policy approved by the Faculty Senate regarding missed class time and assignments, students who represent UNLV in any official extracurricular activity will also have the opportunity to make up assignments, provided that the student provides official written notification to the instructor no less than one week prior to the missed class(es).

The spirit and intent of the policy for missed classwork is to offer fair and equitable assessment opportunities to all students, including those representing the University in extracurricular activities. Instructors should consider, for example, that in courses which offer a "Drop one" option for the lowest assignment, quiz, or exam, assigning the student a grade of zero for an excused absence for extracurricular activity is both contrary to the intent of the Faculty Senate's policy, and an infringement on the student's right to complete all work for the course.

This policy will not apply in the event that completing the assignment or administering the examination at an alternate time would impose an undue hardship on the instructor or the University that could be reasonably avoided. There should be a good faith effort by both the instructor and the student to agree to a reasonable resolution. When disagreements regarding this policy arise, decisions can be appealed to the Department Chair/School Director, College/School Dean, and/or the Faculty Senate Academic Standards Committee.

For purposes of definition, extracurricular activities may include, but are not limited to: academic recruitment activities, competitive intercollegiate athletics, fine arts activities, liberal arts competitions, science and engineering competitions, and any other event or activity sanctioned by a College/School Dean, and/or by the Executive Vice President and Provost.