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Course Overview

This course will help you become familiar with how to do research in political science. The goal will be achieved if, by the end of the course, you are able to read, analyze, understand, and critique the research that is done in political science, and if you are able to plan and carry out political science research on your own.

We will cover a wide variety of topics in this course including frequency distributions, hypothesis testing, correlations, and regression, among others. It is important that you come to class, come to offered labs, and do all of the assignments. Falling behind can be fatal in a cumulative course like this. You will be given both homework assignments and lab assignments, but I will be available to help you with both. These assignments are vital to understanding and, if you keep up with them, your performance on the examinations will be much improved. This course may be intimidating to some of you. Rest assured that if you work hard, you will get through it! The material and techniques you learn in this course are useful (we'll discuss some everyday uses for the sorts of things you will be learning about here) and are really not all that difficult. Your attitude is key - if you are excited to learn, you probably will. If not, there are no guarantees. If you put the time in, you will succeed, period.

Course Objectives

Broadly speaking, the major task of this course is the execution of an original piece of political science research. Successfully execution of the research agenda requires an understanding of the social science research method. In addition, you will be tested on basic quantitative statistical techniques, and you will be required to complete quantitative lab assignments.

Program Level Outcome for Political Science #3: "We seek to help our students to become independent researchers, capable of identifying and articulating hypotheses, seeking information and inputs relevant to the topic, evaluating the credibility of sources and information, applying the appropriate methods and tools for testing or exploring a hypothesis, and drawing proper conclusions based on their findings."

Measure 1: Is able to formulate research questions and place them within the context of appropriate literature.

Table 1: Measure 1 Evaluations

Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
Is able to utilize & apply the three basic forms of inference (deduction, induction, abduction)	Is able to apply two forms of inference (deduction & induction)	Cannot apply basic forms of inference
Can critically evaluate literature appropriate to their research question, using theoretical & empirical tools for critical analysis	Thematically organizes & evaluates literature appropriate to research question	Summarizes appropriate literature
Appropriately places their research question within identified areas of existing literature	Appropriately places research question within identified areas of existing literature	Cannot identify appropriate literature for research question

Measure 2: Can develop and follow a quantitative research design.

Table 2: Measure 2: Evaluations

Exceeds Expectations	Meets Expectations	Does Not Meet Expectations
Can formulate a testable research question, with sophisticated means of operationalization of variables	Can formulate a testable research question, with obvious operationalization	Can formulate a testable research question, with weak or incorrect operationalization
Is able to collect data from primary & secondary sources	Can collect data from secondary sources	Can collect data from secondary sources
Can perform, interpret, & analyze appropriate univariate, bivariate, & multivariate statistical procedures of association & causation	Can perform & interpret appropriate univariate, bivariate, & multivariate statistical procedures of association & causation	Can perform appropriate univariate, bivariate, & multivariate statistical procedures of association & causation

Attendance = 10%

Attendance in class is necessary to succeed. Class instruction includes a mixture of lecture and lab instruction in R Statistical Software. I have suggested books that include many of the techniques that you will learn during lab instruction in R. However, if you do not attend class, it will be much harder to understand why a technique might not work, or what a particular technique is actually doing. The official policy is after you miss an entire week of classes (2 classes), your grade decreases 5% for each subsequent class missed, up to 10%.

Further, in order to circumvent any misunderstandings regarding this course, you are required to complete a quiz on this syllabus before you can access any materials for the class. The quiz can be accessed on D2L in the quiz section for the course. You must complete the quiz with a score of 100%. If you do not complete the quiz, you will not be able to access any of the necessary information for the course on D2L. I view the quiz as a contract between the student and I regarding the requirements for the class.

Homework (10 x 3 = 30%)

Throughout this course there will be 10 homework assignments that you must complete. In order to get any homework credit, you must turn in ALL ASSIGNMENTS. Since the assignments tend to build upon one another as the semester moves forward, failure to complete one assignment will result in a zero for your overall homework grade. The homework assignments are related to either 1.) Your overall research paper, 2.) Lectures and statistical calculations, or 3.) Implementing statistical techniques in R Statistical Software.

All home work assignments are due on Sunday at 8pm of the week that they are assigned. For example, for first homework assignment (Week 2: Sep. 11 - Sep. 13, Homework 1: Annotated Bibliography - 10 Sources) the due date would be Sep. 16 at 8pm.

Exams (2 X 15% = 30%)

There will be two examinations during the course of the semester, listed in the course schedule. Each exam is worth 15% of your overall grade. The exams will be take-home exams. The exams will consist of two sections: 1.) The student is required to calculate statistics by hand and answer theoretical questions about methodology. 2.) The student must implement statistical techniques they have learned in R Statistical Software.

Research paper = 30%

The major assignment for this class is the creation of an original research paper. The research paper should mirror the format of a peer-reviewed journal article in terms of having an 1. Introduction, 2. Literature Review, 3. Theory, 4. Variable Measurement, 5. Methods, 6. Results, and 7. Concluding sections. (More info on the guidelines at a later date.)

Late Work

Late work is not accepted. All of the assignment due dates, criteria for completion, and full explanation are provided well ahead of time. In addition, all of the assignments are turned in electronically on D2L without physically being in class. Therefore, there is no excuse for late work. Makeup exams will not be allowed except for extreme circumstances.

Grading Scale

Grade	Percentage
A	= 92% - 100%
A-	= 90% - 91%
B+	= 88% - 89%
B	= 82% - 87%
B-	= 80% - 81%
C+	= 78% - 79%
C	= 72% - 77%
C-	= 70% - 71%
D+	= 68% - 69%
D	= 62% - 67%
D-	= 60% - 61%
F	= below 60%

NOTE: In cases in which a student is on the borderline between grades (e.g., 91.5), I will always round up to the higher grade, provided that you have attended class regularly and engaged in regular and active participation in class.

If you have any questions about grading policy in general, or any questions about any particular grade you received, please come see me in my office. I will be more than happy to discuss your grade with you and find ways in which your work can be improved and your grade raised.

Academic Dishonesty

I take plagiarism extremely seriously. Let it be noted for the record that cheating in any form will not be tolerated. Anyone caught cheating on an examination will be punished according to University guidelines. In addition, if a paper is handed in without any citations, improper citations, or plagiarized material the paper will receive a zero, and you will be referred to the university for disciplinary action. I will assume that you either copied the material or did not complete the assignment as was required. Please consult the section on student academic dishonesty in the Student Guidebook for a listing of the practices that may be considered cheating.

It is the University's policy to provide, on a flexible and individual basis, reasonable accommodations to students who have documented disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact Disability Services for a letter of verification to provide to their instructors. Disability Services is located in WYLL D175 and can be reached at 262-595-2372 or dss@uwp.edu

Required Reading

Healey, Joseph F. 2016. *The Essentials of Statistics: A Tool for Social Research.* Fourth Edition. Cengage Learning.

Galvan, Jose L. and Melisa C. Galvan. 2017. *Writing Literature Reviews: A Guide for Students of the Social and Behavioral Sciences.* Seventh Edition. Routledge Publishing.

Crawley, Michael J. 2013. *The R Book.* Second Edition. Wiley Publishing

Verzani, John. 2014. *Using R for Introductory Statistics.* Second Edition. CRC Press: Taylor and Francis Group.

Note: Do not buy the books before the first day of class. On the first day of class I will go over your options for obtaining a book.

Class Schedule

NOTE: Reading for a particular day should be done before attending class on that particular day. I have been known to randomly call on students and ask them questions from the reading. Therefore, it is in your interest to be prepared in order to receive attendance points. In addition, the schedule is subject to change based on the flow of class discussion.

Week 1: Sep. 6
Syllabus
Student introductions
Topic: *Introduction: Social Scientific Methods & R Statistical Software*
Read: Healey, Ch. 1; Verzani, Ch. 1

Week 2: Sep. 11 - Sep. 13
Read: Dolan 2011, Hansen and Dolan 2018, Galvan and Galvan 2017
Topic: *Finding Sources, Reading Literature, and Creating a Literature Review*
Note: September 11 - Library Instruction, Computer lab L1
Homework 1: Annotated Bibliography - 10 Sources

Week 3: Sep. 18 - Sep. 20
Topic: *Descriptive Statistics and Central Tendency*
Read: Healey, Ch. 2 & 3
Homework 2: Theory and Measurement

Week 4: Sep. 25 - Sep. 27
Topic: *Measures of Dispersion & Probability and Sampling*
Read: Healey, Ch. 4 & 5

Exam 1: Due Oct. 1, 8:00pm

Week 5: Oct. 2 - Oct. 4
Topic: *Inference and Sampling & Estimation*
Read: Healey, Ch. 6
Homework 3: Inference & Estimation

Week 6: Oct. 9 - Oct. 11
Topic: *Hypothesis Testing, One & Two Sample*
Read: Healey Ch. 7 & 8
Homework 4: Hypothesis Testing

Week 7: Oct. 16 - Oct. 18
Topic: *Hypothesis Test, ANOVA & Chi-Square*
Read: Healey, Ch. 9 & 10
Homework 5: Literature Review Due

Week 8: Oct. 23 - Oct. 25
Topic: *Measures of Association & Controls*
Read: Healey, Ch. 11 & 12
Homework 6: Association

Week 9: Oct. 30 - Nov. 1
Topic: *Linear Regression - Bivariate & Multivariate*
Read: Ch. 13
Homework 7: Linear Regression

Week 10: Nov. 6 - Nov. 8
Topic: *Logistic Regression*
Homework 8: Logistic Regression

Week 11: Nov. 13 - Nov. 15
Topic: *Catch Up Week*
Homework 9: Paper Data & Initial Analysis

Week 12: Nov. 20 - Nov. 22
Thanksgiving Break - Work on Final Paper

Exam 2: Due Nov. 26, 8:00pm

Week 13: Nov. 27 - Nov. 29
Topic: *Research Paper Work*
Homework 10: Theory and Methods Sections Due

Week 14: Dec. 4 - Dec. 6
Topic: *Research Paper Work*

Final Paper Due - Dec. 11 at 7:45pm