



Applied Data Analysis

PSCI 348 01E

Spring 2018

3:30-4:45 PM T/Th

SS 311

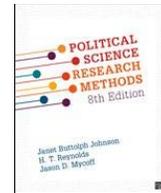
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Office hours: 1-5 PM Wed; 10-11 AM Thr and by appointment

Very often a solution turns on some means of quantifying phenomena or states that have hitherto been assessed in terms of "rather more," "rather less," or "a lot of" or - sturdiest workhorse of scientific literature - "marked" ("The injection elicited a marked reaction"). Quantification as such has no merit except insofar as it helps to solve problems. To quantify is not to be a scientist, but goodness, it does help.
- P.B. Medawar, Advice to a Young Scientist

Course Information

Textbook required:

Johnson, Janet Buttolph, H.T. Reynolds, and Jason D. Mycoff. 2016.
Political Science Research Methods (8th edition).
Thousand Oaks, CA: CQ Press (ISBN: 978-1506307824).



Additional readings may be supplied on the web or in class.

Textbook Readings. Given the vast amount of information available in the course, we will not have enough time to "cover" all of the readings in the assigned books—chapter by chapter. Consequently, this course will depend on you to **complete all assigned readings** and be prepared to participate in the class in a timely manner. Please note that all assigned readings are critically important for successfully completing assignments, exams, and other class requirements.

Course Description

Students will be introduced to introductory empirical and statistical methods in political science. Students will focus on applied methods of sampling, probability, descriptive and inferential statistics, and hypothesis testing for application to political science and social science research.

The specific purpose of this course is to introduce students to the use of statistics in political science research. Statistical topics to be covered in this class begin with what we refer to as descriptive statistics where students are introduced to such things as measure of central tendency, measures of dispersion, and the normal curve. We will then proceed to what is known as inferential statistics which include such things as probability and hypothesis testing. We will turn next to measures of association, first, associations between two variables and then associations using what we call multivariate measures. As part of the statistical training offered in this course, students will use the statistical package known as SPSS. However, the course does not require advanced mathematical skills (i.e., above the ninth grade level) or any prior knowledge of the computer.

Learning Objectives

Upon completion of this course

1. Describe the role of statistics in social science research and demonstrate how to create testable hypotheses.
2. Calculate and describe the different measures of central tendency and measures of dispersion.
3. Demonstrate the ability to make comparisons between groups and correctly analyze relationships between categorical variables.
4. Demonstrate knowledge of the appropriate methods, technologies, and data that social and behavioral scientists use to make an inference.

Course Policies and Procedures

All students are expected to comply with the following requirements.

Classroom Civility

Students are expected to assist in maintaining a classroom environment which is conducive to learning. In order to assure that all students have an opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from using electronic devices, challenging instructor's authority, eating or drinking in class, coming in late or leaving early, making offensive remarks, reading newspapers, sleeping or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in, minimally, a request to leave class. No student will be allowed to "dominate" any class period.

Electronic Devices

Switch off (or mute) personal electronic devices (laptops, tablets, cell phones, smartphones, iPads, iPods, mp3 players, and any kind) during class. Also tape recorders, camera and video phones, and all other visual and auditory recording or retention devices, are strictly prohibited in this class. Please do not bring or use those devices.

Plagiarism

Plagiarism is a serious offense and will not be tolerated. Plagiarism occurs when a student purposefully or unintentionally takes information directly from a source without proper citation. For example, forgetting to cite an author and page number with a quote is plagiarism, as is direct copying and pasting from a website. Plagiarism will result in an F for the course and notification to the Dean of Students. Plagiarism is often a result of improper citation and/or acknowledgement of sources; therefore, we will be going over plagiarism in class so you can avoid common pitfalls (and an F!). If a student needs additional assistance, please consult me during my office hours.

Student Discipline

I expect all students to maintain the highest level of personal responsibility and academic honesty which is discussed in Texas A&M University-Commerce Procedures A13.12 Academic Honesty. "Academic dishonesty includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material."

Academic dishonesty affects all individuals at the University and accordingly will not be tolerated. For this class, academic dishonesty includes cheating, plagiarism, collusion and/or falsifying academic work. Any and all instances of academic dishonesty will be referred to the appropriate offices on campus and may result in significant penalties.

Faculty have the authority to request students who exhibit inappropriate behavior to leave the class and may refer serious offenses to the University Police Department and/or the Dean of Students for disciplinary action. Failure to comply with the commonsensical directions listed above may result in a verbal request to cease inappropriate behavior, your immediate removal from the class and/or a review by an appropriate university disciplinary agency. For more information on this subject, please see the Student Guidebook.

Submitting Assignments

You are responsible for attaching the correct assignment to the correct folder in the Dropbox. Once you submit your assignment, you should always click on the Outbox to make sure the assignment is there. You can tell if it is attached in at least two ways: (1) touch the little document icon (symbol for an attachment) with your cursor and the name of your document will appear or (2) click on the little icon and actually open and view the document. Submitting an incorrect document, a blank document, or no document is counted as failure to complete the assignment on time.

Each assignment or work should include your name in the content. Also make your computer file name, when attaching to the Dropbox, using your last name and a specific assignment (i.e., Choi Assignment1.docx).

Late Work

No late work accepted and work cannot be made up.

Technology Requirements

Because this is a web-enhanced course, all students must meet the following technology requirements to successfully complete this course.

Regular access to a good quality computer

Regular, high-quality Internet access, specifically, a high-speed internet connection, not dial-up or a cellular phone. Students should use the eCollege tutorial to test the quality and speed of their browser and ensure that it is compatible with the system. Students will need access to an Internet browser such as Internet Explorer.

Access and Navigation

Student will access this course using eCollege, the Learning Management System used by Texas A&M University-Commerce. Students can access their online courses using through the myLeo portal or directly from the URL <http://online.tamuc.edu>. In order to login, students will need both their CWID and password to access the myLeo site. If you do not know what your CWID or password is, please contact Technology Services at 903-468-6000 or by e-mail, helpdesk@tamuc.edu.

eCollege Student Technical Support

Technical support for eCollege is provided around the clock (24 hours a day/7 days a week) so if students experience technical issues with the class page itself they should contact the student help desk for assistance. Students can access support through one of three following methods:

1. Chat support: Students can access real-time chat support from within the course page by clicking on "Tech Support" in the tool bar and then clicking on "Chat Online."
2. Phone: Students can access phone support by calling the toll free phone number for eCollege, 1-866-656-5511.
3. E- mail: Student can request assistance by e-mail eCollege directly at helpdesk@online.tamuc.org. Please note that you might not receive a response for 24 hours if you use the e-mail option. eCollege also has extensive help files available. These can be accessed by clicking the 'Help' button on the toolbar.

Communication: Office hours and Email

The best way to contact me is to stop by my office during office hours or to schedule an appointment. Outside of class email is also the dominant means of communication between the instructor and students. The instructor can usually be reached by email with little difficulty. Due to the vast increase in spam email, any email sent to me MUST include a subject line such as "PSCI 348" identifying it as class related. Without such a subject line, it is likely to be deleted without being read.

Access to SPSS

You will learn how to use SPSS (statistical software package) to conduct empirical research in social science using the tools covered in class. Some homework assignments require access to SPSS. Students can access SPSS through the computer lab or computers in the university library. You can also purchase IBM® SPSS® Student GradPack.

USB Jump Driver and Hand Calculator

Bring a USB jump driver and a hand calculator to the class so that you can save data files and calculate by hand.

Student Conduct

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See Code of Student Conduct from Student Guide Handbook). Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <http://www.albion.com/netiquette/corerules.html>

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for

reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library Room 132
Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Grading and Evaluation

Grading

The final grade will be determined on the following basis:

Requirement	Percentage
Attendance/Participation	10%
Exam 1	20%
Exam 2	30%
Assignments	40%

Grading Scale

Standard	Grade	Points
Excellent	A	100-90
Good	B	89.9-80
Average	C	79.9-70
Below Average	D	69.9-60
Unacceptable	F	59.9-0

I will do my best to help students with any other needs they may have. Do not wait until the end of the semester to see assistance as that will be too late to make a difference. In all cases, it is necessary for the student to discuss their concerns with me as soon as possible after the concern develops. There is little that can be done at the end of the semester to compensate for earlier difficulties.

Note: I am not responsible for your scholarships, academic eligibility in extracurricular activities, or graduation eligibility. Do not come to me pleading that you “need” or “have to” get a certain grade. The grade you earn is the grade you will get. Under no circumstance will I arbitrarily change a grade, so do not ask. NO exceptions! Also, there will be NO extra project for this class regardless of the situation. Also, I am not allowed to dispense or discuss grades over the phone or via email, but grades will be posted on the class web.

Attendance/Participation (10% of total course grade)

“Eighty five percent of success is merely showing up.” — Woody Allen —

Attendance is mandatory. Class attendance is crucial to your understanding of the concepts, issues, processes and not all of them will be covered in the assigned texts. Attendance is part of the course experience the same as lectures, texts, exams, and other course elements. Attending class can only help your grade so I strongly suggest you show up to class on a regular class.

Class attendance/participation counts 10% toward your final grade. Roll will be taken regularly. Repeated absence will be detrimental to your final grade, as will repeated tardiness, which is disruptive to your classmates. Students sleeping, talking, text messaging or otherwise not paying attention in class will be marked absent. Students who arrive late or leave early will be counted as absences.

Consistent with University policies and procedures, students who are absent for 4 class meetings will be administratively dropped from the class. There will be no “excused” absences aside for official university activities or documented medical issues. Students are required to provide documentation by the next class meeting to receive an excused absence.

Midterm Exams (50% of total course grade)

There will be two exams. The exams will cover material from the assigned readings, lectures, and class discussion. The exams will always include material from the readings that have not been discussed in lectures. Bring a bluebook and pencils.

After each exam full grade information will be posted on the class web. This information will be updated after each exam and immediately before the final exam period. It is each student’s responsibility to check this grade information after each exam and notify the instructor if s/he believes it contains any errors. Errors can be corrected if brought to the instructor’s attention promptly. Do not wait weeks or until the end of the semester to discover or mention errors. By then it is probably too late.

Makeup Exams

I expect that students will take exams on the day that they are given. If you have a legitimate reason for missing an exam (e.g. severe illness or injury requiring professional medical care) AND you have supporting documentation for your absence, then you may request taking the make-up exam. It is the responsibility of the student to make arrangements to take a make-up exam within two days of the date the exam was missed. If you have an excuse that is documented and have been verified by me and do miss the exam, all make up exams will be given at the conference room of the political science department (Social Science Building 132C) at 3 pm, Wednesday, May 2. No makeup exam will be given for the second exam. Make-up exams, at the discretion of the instructor, may be in a complete essay format or calculations.

Assignments (40% of total course grade)

Students are required to complete assignments. Assignments will consist of problem sets, short reports on research design, and data analysis working with data sets in SPSS. Assignments will be assigned in class and will be due at the beginning of class the following week. Late assignments will not be accepted. If you do not turn in an assignment on time, you will receive a zero on that assignment.

Assignment should be posted to Dropbox on eCollege under each assignment by specified time. If this specified time passes, the submission section on eCollege will be automatically closed.

Course Schedule

Students are responsible for reading assigned chapters before the class covers them. This is the anticipated course schedule, but it may be subject to minor revisions as the semester progresses.

Week 1 (1/16-18)

Topics: Course Introduction

Week 2 (1/23-25)

Topics: Nature of Social Science Analysis
Readings: Ch. 1; Ch. 2

Week 3 (1/30-2/1)

Topics: Measurement of Concepts
Readings: Ch. 3; Ch. 4

- Week 4** (2/6-8)
Topics: Building Theories and Framing Hypotheses / Research Design
Readings: Ch. 3; Ch. 4; Ch. 6
- Week 5** (2/13-15)
Topics: Measuring Variables
Readings: Ch. 5; Ch. 11
- Week 6** (2/20-22)
Topics: Statistical Inference and Hypothesis Testing
Readings: Ch. 7; Ch. 12
- Week 7** (2/27-3/1)
Topics: Statistical Inference and Hypothesis Testing
Readings: Ch. 7; Ch. 12
- Week 8** (3/6)
Exam #1
- Week 9** (3/8-20)
Topics: Correlation
Readings: Ch. 13
- Week 10** (3/13-15)
Spring Breaks
- Week 11** (3/22-27)
Topics: Chi-Square Test
Readings: Ch. 13
- Week 12** (3/29-4/3)
Topics: Introduction to Regression
Readings: Ch. 14
- Week 13** (4/5-4/10)
Topics: Bivariate/Multiple Regression
Readings: Ch. 14
- Week 14** (4/12-17)
Topics: Applications of Multiple Regression
Readings: Ch. 14
- Week 15** (4/19-24)
Topics: Applications of Multiple Regression
Readings: Ch. 14
- Week 16** (4/26-5/1)
Topics: Logit and Probit Regression
Readings: Ch. 14
- Week 17** (5/3)
Exam #2