

GVPT 622: Quantitative Methods for Political Science Fall 2019

Monday 2:00-4:45 LeFrak 0229
Friday (Lab) 2:00-4:00 LeFrak 0229

Instructor: David Cunningham
Office Hours: Wednesday 9-11 and by appointment
Office: Tydings 3140L
Email: dacunnin@umd.edu

Teaching Assistant: Ted Ellsworth
Office Hours: Monday 10-11, Friday 10-11, and by appointment
Office: Tydings 5139
Email: tedellsw@terpmail.umd.edu

Course Description and Goals

This course provides an introduction to research methods and quantitative research in political science. The course has two main goals. The first is to enable students to read and evaluate political science research that uses quantitative methods. The second is to prepare students for more advanced methodology courses. In addition, you will learn how to apply basic quantitative methods to political questions and acquire basic knowledge of the statistical software program R. The class will meet twice a week--Monday lectures with the instructor and lab sessions on Friday with the teaching assistant. The lab sessions are designed to teach students how to use the statistical program R for data analysis, review homework assignments and exams, and answer any questions about the substantive material covered in the class lectures.

Course Reading

One book listed below is required for this course, and I recommend two additional resources. You must also have access to (and use) the statistical package R. You may download the software on your personal computer for free at: <https://cran.r-project.org/>.

Required:

- Moore, David S., George P. McCabe, and Bruce Craig. 2016. *Introduction to the Practice of Statistics* (9th ed.). W.H. Freeman Press.

Recommended:

- Pollock III, Philip H. 2015. *The Essentials of Political Analysis* (5th ed.). CQ Press.
- Monogan III, James E. 2015. *Political Analysis Using R*. Springer Press.

Campus Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include topics like:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations
- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Course Requirements and Evaluation

Your final grade will reflect the sum of points earned from each of the following categories:

- Midterm Exam #1 (October 7) 25%
- Midterm Exam #2 (November 6) 25%
- Final Exam (December 14) 30%
- Homework Problem Sets 20%

Grades are defined below and are based upon how many points you earn according to the following distribution:

A+	“Excellent mastery of the subject”	97-100 pts.
A		93-96 pts.
A-		90-92 pts.
B+	“Good mastery of the subject”	87-89 pts.
B		83-86 pts.
B-		80-82 pts.
C+	“Acceptable mastery of the subject”	77-79 pts.
C		73-76 pts.
C-		70-72 pts.
D+	“Borderline understanding of the subject”	67-69 pts.
D		63-66 pts.
D-		60-62 pts.
F	“Failure to understand the subject”	fewer than 60 pts.

Homework Problem Sets

There are multiple problem sets due over the course of the semester. You can expect to receive an assignment each week (with some exceptions). I will distribute problem sets through Elms on Monday, and a hard copy of your completed problem set will be due at the beginning of the following class. I will not accept assignments delivered through e-mail. I will post an answer key for each problem set on Elms, and thus no problem sets will be accepted after that answer key is posted. If you know in advance that you will be unable to physically hand in the problem set, you must contact me at the earliest possible time to make alternative arrangements. I encourage students to work together on the problem sets. However, you must turn in your own work that is in your own words (including script files) to receive credit for the problem sets. Students should refer to the section on academic integrity and thoroughly familiarize themselves with UMD's policies in this regard.

Course Schedule

The following is a tentative class and reading schedule. The course schedule and required readings are subject to change. Note: Required readings listed each day should be completed prior to the start of class.

August 26: Course Introduction

August 30: No Lab Session

September 2: No class (Labor Day)

September 6: No Lab Session

September 9: Descriptive Statistics

- Moore/McCabe/Craig, Chapter 1

September 13: Lab Session #1

- Monogan, Chapter 1-2 (recommended)

September 16: Relationships Between Two Variables

- Moore/McCabe/Craig, Chapter 2

September 20: Lab Session #2

- Pollock, Chapters 1 & 2 (recommended)
- Monogan, Chapter 3 & 4 (recommended)

September 23: Research Design

- Moore/McCabe/Craig, Chapter 3

September 27 | Lab Session #3

- Pollock, Chapter 3 (recommended)
- Monogan, Chapter 3 & 4 (recommended)

September 30: Applications I

- Segal, Jeffrey A. & Albert D. Cover. 1989. "Ideological Values and the Votes of U.S. Supreme Court Justices." *American Political Science Review* 83(2): 557-565.
- Sondheimer, Rachel Milstein & Donald P. Green. 2010. "Using Experiments to Estimate the Effects of Education on Voter Turnout." *American Journal of Political Science* 54(1): 174-189.

October 4 | Lab Session #4

- Midterm exam review
- Pollock, Chapter 4 (recommended)

October 7: Midterm Exam #1

October 11 | Lab Session #5

- Discussion of exam solutions

October 14: Probability Theory

- Moore/McCabe/Craig, Chapters 4 & 5

October 18: Lab Session #6

- Pollock, Chapter 5 (recommended)
- Monogan, Chapter 5 (recommended)

October 21: Hypothesis Testing I

- Moore/McCabe/Craig, Chapters 6 & 7

October 25: Lab Session #7

- Pollock, Chapter 6 (recommended)
- Monogan, Chapter 5 (recommended)

October 28 | Hypothesis Testing II

- Moore/McCabe/Craig, Chapters 8 & 9

November 1: Lab Session #8

- Pollock, Chapter 7 (recommended)
- Monogan, Chapter 5 (recommended)
-

November 4: Hypothesis Testing II & Applications II

- Brooks, Deborah Jordan. 2011. "Testing the Double Standard for Candidate Emotionality: Voter Reactions to the Tears and Anger of Male and Female Politicians." *The Journal of Politics* 73: 597-615.

November 8: Lab Session #9

- Midterm exam review

November 11: Midterm Exam #2

November 15: Lab Session #10

- Discussion of exam solutions

November 18: Regression Analysis I

- Moore/McCabe/Craig, Chapter 10

November 22: Lab Session #11

- Pollock, Chapter 8 (recommended)
- Monogan, Chapter 6 (recommended)

November 25: Regression Analysis II

- Moore/McCabe/Craig, Chapter 11

November 29: No Lab Session (Thanksgiving Holiday)

December 2: Regression Analysis III

- Moore/McCabe/Craig, Chapter 14

December 6: | Lab Session #12

- Pollock, Chapter 9 (recommended)

December 9: Applications III and Wrap-up

Final Exam | December 14, 1:30pm-3:30pm (0227 Lefrak Hall)

One Final Note: All course materials are copyright protected. You must receive written consent from the instructor prior to any reproduction or distribution of lectures or any other course materials.