

# PSCI 3440: Research Methods

Spring 2021

**Instructor:** Wesley Wehde ([wehdew@etsu.edu](mailto:wehdew@etsu.edu); [www.wwehde](http://www.wwehde.com))

**Classroom:** ONLINE **Class Time:** W 3:10 pm - 4:30 pm

**Office:** ONLINE **Office Hours:** By appointment only.

## Description

This course is designed to provide undergraduates in Political Science with a firm foundation in, and an ability to apply, quantitative methods that are commonly used in the social sciences. The course is also designed to provide a working knowledge of R, a free software program for statistical computing and graphics. By the end of the course, students will understand the principles of social research and apply these principles when evaluating and conducting quantitative research in the social sciences. Students will also learn to:

1. Find a dataset and prepare it for analysis
2. Describe and visualize quantitative data
3. Identify and employ appropriate statistical methods
4. Communicate results using words, numbers, and graphics

Along the way, students will learn to use a variety of tools and programs that are increasingly common in academic and data science communities, such as [RStudio](#), [R Markdown](#), [Beamer](#), and [GitHub](#)

## COVID Clause

First things first. This semester will not be normal. There is STILL a pandemic. One we tried to react to quickly, but not quickly enough, and strongly, but not strongly enough, back in March 2020. Life is harder than normal right now. If you need extra time on an assignment, just let me know. No need to tell me why but a quick heads-up is super helpful. If you need extra time on lots of assignments, definitely let me know so we can talk and figure out how to build a structure of support for you to finish this class and your degree. All I ask for is patience and kindness in return.

## Format

This class will include lectures and lab sessions in R. Students are expected to ***read the assigned material before class and participate regularly***. Our pace will be brisk. Be sure to keep up and ask questions.

## Management

I will use D2L for course management and support. Course documents, assignments, class announcements, and grades will be posted there. Note, however, that grades found on D2L are unofficial; official grades are those that the instructor keeps. Every effort will be made to post grades correctly, but the instructor reserves the right to correct clerical errors. Please monitor D2L for announcements.

## Materials

- [QRM: Quantitative Research Methods for Political Science, Public Policy & Public Administration for Undergraduates](#)
- [LG: Lab Guide to Quantitative Research Methods in Political Science, Public Policy & Public Administration](#)
- [CPR: The Craft of Political Research]
- [OIS: OpenIntro Statistics](#)

## R Resources

- [R Project](#)
- [R Studio](#)
- [Quick-R](#)
- [R Data Import/Export](#)
- [Twotutorials](#)
- [DataCamp](#)
- [Swirl](#)
- [R for Data Science](#)
- [RStudio Cheet Sheets](#)
- [Google's R Style Guide](#)
- [Advanced R Style Guide](#)
- [R Markdown: The Definitive Guide](#)
- [MiKTeX](#)
- [MacTeX](#)

## Homework

Homework will be assigned, graded, and discussed on a regular basis. Exercises will be available on D2L. Homework for this class will be accepted **up to three days after the due date**. For each day late, the assignment will be docked ten points. So if an assignment is due 2/15 and is turned in on 2/18 then the maximum grade a student can receive is a 70. After the third day, the student will receive 35% for that assignment.

## Study Questions

Study questions are a completion grade worth 15% of the total class grade. These questions are located at the end of each QRM chapter. The student or students who turn in

the most study questions on time will be awarded full credit and others grades will be scaled accordingly. Study Questions are due before the synchronous Wednesday class and will be submitted to Dropboxes on the D2L site.

## Schedule

Directions will be posted to the D2L course website.

- **Assignment one due 2/14 at 11:59 pm**
- **Assignment two due 3/7 at 11:59 pm**
- **Assignment three due 4/4 at 11:59 pm**
- **Assignment four due 4/11 at 11:59 pm**
- **Assignment five due 4/18 at 11:59 pm**

## Exam

There will be a midterm exam. Students will work alone to demonstrate their mastery of the concepts and methods that have been covered up to this point in the course. The exam will be a take-home and in-class exam scheduled for the **tenth week of class**. This exam will be due at 11:59 on March 28th.

## Research Paper

You will write a short research paper that demonstrates your mastery of the concepts and methods that are covered in the course. The paper will include the following sections:

1. Introduction (~250 words)
2. Theory and Hypothesis (~500 words)
3. Data and Methods (~1000 words)
4. Findings (~1000 words)
5. Conclusion/Discussion (~500 words)

A rubric to use as a guide for the paper will be posted to the course website. Each member must submit the full paper to the Dropbox for grading purposes.

For the paper, you have three options: 1) you can find your own data online, 2) you can collect your own data or 3) you can use the data provided to you as part of the course. *If you choose to use data that you have found, I will evaluate this data on the second assignment which is due March 7th.*

## Grades

Study Questions - 15%  
Midterm Exam - 25%

Homework Assignments - 30%  
Final Paper - 30%

Final Grades will be assigned based on the following designations. I will round based on the first decimal place.

A = 94-100 A- = 90-93 B+ = 87-89 B = 84-86 B- = 80-83 C+ = 77-79 C = 74-76 C- = 70-73 D+ = 67-69 D = 60-66 F = 0-59

## Office Hours

Office hours are a designated time I will be in my office available to you to discuss the content of this course. You are welcome to come by during these times to seek help or clarification on the assignments, tests, lectures, or any other material. Please take advantage of this time I have set aside for you; otherwise, I'll be sitting in my office alone probably staring at my computer waiting for you to come in.

## Syllabus Attachment

Follow this [link](#) for more information about the following listed resources, policies, and many more. Please let me know if you have any questions about the information obtained through this link.

## Mental Health and Wellness Resources:

Students may experience overly stressful situations throughout the semester in their personal, professional or academic lives. The university provides a variety of resources for students in these situations or any situation the student may find they need help. One such resources is the University Counseling Center is in Nell Dossett Hall and can be contacted at 423-439-3333. The BucsPress2 hotline is a 24/7 mental health helpline available to students at (423)-439-4841. Finally, students should take care of their physical well-being as well. Resources to do so include the CPA and the University Health Center which can be reached at 423-439-4225. (Syllabus Easter egg 1: send an e-mail to my etsu.edu address with a picture of your favorite animal, can be your own or any random picture, and I will give you a half percentage point of extra credit on the first test).

## Reasonable Accommodations

If you are a student who requires accommodations please see me immediately. Together we will develop a full accommodation strategy for you in this course. It is the policy of ETSU to accommodate students with disabilities, pursuant to federal law, state law and the University's commitment to equal educational opportunities. Any student with a disability who needs accommodations, for example arrangement for examinations or seating placement, should inform the instructor at the beginning of the course. Faculty accommodation forms are provided to eligible students by Disability Services. Disability Services is located in the D.P. Culp Center, Room 326, telephone 439-8346.

<http://www.etsu.edu/students/disable/>.

## Religious Beliefs Accommodations

It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty.

## Academic Integrity

Cheating is strictly prohibited because it devalues the degree you are working hard to get. As a member of the ETSU community it is your responsibility to protect your educational investment by knowing and following the rules. To be successful in this class, all work on exams and quizzes must be yours and yours alone. You may not receive outside help. On examinations and quizzes you will never be permitted to use your notes, textbooks, calculators, or any other study aids. Should you see someone else engaging in this behavior, I encourage you to report it to myself or directly to the Office of Academic Integrity Programs. That student is devaluing not only their degree, but yours, too. Be aware that it is my professional obligation to report academic misconduct, which I will not hesitate to do. Sanctions for academic misconduct can include expulsion from the University and an F in this course, so don't cheat. It's simply not worth it.

## Schedule (Warning! This schedule is approximate and may be adjusted)

- **Week One Jan. 19 - 22: Introduction to Social Research**
- **Week Two Jan. 25 - 29: Research Design and Data Collection**
  - QRM Ch. 2
- **Week Three Feb. 1 - 5: Data Collection and Downloading R**
  - QRM Ch. 4 & 5
  - [Swirl: R Programming](#)
- **Week Four Feb. 8 - 12: Describing & Visualizing Data**
  - QRM Ch. 6
  - Jensen, Carsten, & Michael Bang Petersen. 2016. "The Deservingness Heuristic & the Politics of Health Care." *American Journal of Political Science* 61(1):68-83.
- **Week Five Feb. 15 - 19: Probability & Distributions**
  - QRM Ch. 7
  - OIS Ch. 3
  - Recommended Reading: CPR Ch. 6
- **Week Six Feb. 22 - 26: Foundations for Inference**
  - QRM Ch. 8
  - OIS Ch. 5 [Videos!](#)
  - White, Ismail K., Chryl N. Laird, & Troy D. Allen. 2014. "Selling Out?: The Politics of Navigating Conflicts between Racial Group Interest and Self-Interest." *American Political Science Review* 108(04):783-800.
- **Week Seven Mar. 1 - 5: Inference for Two Populations**
  - QRM Ch. 8
  - OIS Ch. 6 and 7
- **Week Eight Mar. 8 - 12: MY SPRING BREAK - NO CLASS**
- **Week Nine Mar. 15 - 19: Covariance, Correlation, Measures of Association**
  - QRM Ch. 9

- **Week Ten Mar. 22 - 26: Midterm Exam**
- **Week Eleven Mar. 29 - Apr. 2: Bivariate (Simple) Linear Regression**
  - QRM Ch. 10 & 11
  - OIS Ch. 8 (videos: <https://www.openintro.org/stat/videos.php>)
- **Week Twelve Apr. 5 - 9: Bivariate Linear Regression 2**
  - QRM Ch. 12
  - Mutz, Diana C., & Jahnavi S. Rao 2018. "The Real Reason Liberals Drink Lattes."  
*PS: Political Science & Politics* 1-6.
- **Week Thirteen Apr. 12 - 16: BREAK DAY NO CLASS**
- **Week Fourteen Apr. 19 - 23: Multiple Regression**
- QRM Ch. 13 & 14
- **Week Fifteen Apr. 26 - 30: Review Sessions for Final Paper**
- **Finals Week: Final Papers Due at 12:30pm on Wednesday May 5th**