Research Methods in Political Science and Health

POLS/HEAL 201 C1 // Fall 2020 – MOD 2 // Richardson Hall OR Virtually //
Mondays 10:15 – 11:15 AM
Tuesdays 9:30 – 11:30 AM
Wednesdays 10:15 – 11:15 AM
Thursdays 9:30 – 11:30 AM //
Professor Philip Chen // chenp@beloit.edu //
Office: Morse-Ingersoll 7 // Virtual Office Hours: By Appointment

Course Description

This course offers an overview of research methods used in health and political science research. Course objectives will include an introduction to basic statistical concepts and research design; the course will also emphasize the use of STATA statistical software for production of various statistical output (ANOVA, odds ratios, bivariate and multivariate regression analyses). Prerequisite: None, but POLS 110 or higher recommended. Please note: Depending on software availability, students may be required to purchase a 6-month license to Stata, which costs approximately $45.

Course Objectives

By the end of this semester, you should be able to:

-Understand and apply basic statistical concepts to the study of political science and/or health
-Analyze data and communicate findings in written and oral formats
-Identify the proper statistical analysis for a set of data and run that analysis using Stata

Structure of the Class

Given the current pandemic, this class will be taught as a hybrid class. Students have the option to participate in the class with both in-person and online components (hybrid) or, if you prefer, you can participate in the class entirely online.

Because of the hybrid nature, it will be very important for you to stay up to date on the readings and participate in discussions, both in class (either virtually or in person) and to stay current on the workbook assignments. This class follows a slightly different format that many classes you might take at Beloit. There will be some lecture or guided discussion on the various topics, which is necessary to make sure everybody is familiar with the statistical concepts covered in the class. However, do not expect this to be a class built largely around lecture. This is primarily a function of the type of learning I am expecting from students in this class. I don't expect you to memorize statistical formulae or know how to calculate statistics by hand. What I want you to leave this class with is an understanding of where to look for information and how to apply it.

Therefore, the course outcomes are practical. How do you write a literature review? Where and how do you find good academic sources? How do you run a regression analysis in Stata? How do you interpret the results of that analysis? These are skills best gained through practice and repetition. Thus, large portions of the class are devoted to you practicing the skills and techniques we talk about. This may take the form of small group work, individual lab time, or large group discussions. Because of this, please come to class prepared to discuss the day's readings and bring copies of the readings, either in electronic or paper form, as this is a key component of the course. If you don't understand part of a reading, that's ok! Just come prepared to ask a question about that reading.

Most weeks, Tuesdays and Thursdays will serve as our main lecture and discussion days and Mondays and Wednesdays will serve as Stata Tutorial sessions. These classes will be held in-person and virtually. All of these classes will be livestreamed on Zoom. Students are expected to attend these classes, either in-person or virtually, and if you cannot attend, you will be responsible for a weekly response paper based on recordings of the sessions. ***Please check the weekly schedules to confirm when our class will meet!***

In these lecture sections, I will talk about new topics or extensions of the readings. However, I do not plan on lecturing on all of the readings because a) you are expected to have read them already and b) I'm not witty or interesting enough to lecture all the time.

Office Hours and Help

I strive to make this course understandable and accessible for all students. If you have any questions about the content or structure of the course or about specific assignments, please do not hesitate to contact me. I am always happy to help if you come to me before assignments or exams are due. Please do not wait to ask for help until after the due date, come talk to me before if you are struggling. Because of the pandemic, I will host virtual office hours on Zoom.

Required Texts

This class will feature a mix of academic books and articles as well as pieces written by political practitioners. The required book is listed below and is available at the online college bookstore or from Amazon or other places online. Readings are available on the class Moodle site at:

https://moodle2021.beloit.edu/course/view.php?id=284

There is one required book for the course:

Pollock III, Philip H. (2015). *A Stata Companion to Political Analysis. Fourth Edition.*

In addition, for those who want an introductory statistics book, I highly recommend the following Open Access book. You'll notice that there is no official statistics textbook assigned for this class. I will draw from a variety of political science research textbooks for readings. If

you want to learn the background statistics in more detail, I refer you to:
https://www.openintro.org/stat/textbook.php?stat_book=os

Grading

Grades are based on four different components, described in more detail below. 40% of your grade will come from the final research paper that you will develop over the semester (1). An additional 25% of your grade will come from completing homework assignments with Stata (2). 10% of your grade consists of attendance and participation in class (3). Finally, 25% of your grade consists of weekly reading quizzes (4).

Reading Quizzes (Average of all 5)	25%	
Extra Credit Presentation – Replaces Lowest Quiz Grade		
Homework Assignments	25%	
Final Research Paper	40%	
Research Ideas		Required (No Grade)
Research Question and Variables		Required (No Grade)
Literature Review		Required (No Grade)
Hypotheses, Data, and Methods		Required (No Grade)
Results and First Draft		Required (No Grade)
Individual Paper Meeting		Required (No Grade)
Participation & Attendance	10%	

Weekly Reading Quizzes (25%) – Over the past couple years, I've come to dislike the concept of midterm and final exams because they place a premium on memorization and intense study rather than a cohesive synthesis of the material we read. In essence, finals and midterms seem to encourage students to memorize minutiae instead of substance.

However, the readings for this class were chosen with intention and I believe they are important for students to get the most out of the class. While I will sometimes lecture on the readings, the reading quizzes will focus both on things we cover in class as well as things that are only located in the readings.

While I would love to be able to simply ask "did you do the reading?" and grade you on this, it seems unrealistic. The first five weeks will each have an online reading quiz, due by Sunday evening at 11:59 pm. You are welcome to use both class and reading notes and the readings for these quizzes. These quizzes will consist of a few multiple choice or short answer questions, as well as one or two longer (2-3 paragraph) questions that ask you to synthesize the readings in some way. When we get into the statistics, they may include simple calculations, but you will not be expected to memorize formulae (I'll give you information you need).

I understand that sometimes things come up and readings don't get done, but with the short mod schedule, I believe it is important to do all of these readings. However, if you are unhappy with your grade on a quiz, you can do an extra credit presentation in the last week of class on your

final paper. This extra credit presentation will replace your lowest quiz grade with your grade on the presentation.

Homework Assignments (25%) – A major component of this course is learning to apply the statistical techniques using a computer program called Stata. To help with this, you will complete a variety of homework assignments. These will be a combination of work from the assigned textbook and questions that I wrote. You will need to turn in the hard copy of each completed homework assignment on the due date.

Now here's a bit of truth about research methods and Stata: The program takes a while to get comfortable with and the only way to do this is to sit at the computer and try things. I will give you time during class as a lab to work on the assignments, but you will also likely need to spend additional time to finish the work. And here's another thing: research rarely occurs as a single individual in isolation. What this means is that I encourage you to talk with your classmates and work through problems together if you are confused or having problems.

Because these assignments build off of each other, I have them grouped into multiple due dates throughout the semester. This means if you are stuck on something, you should have a little extra time to work, and if you understand something well, you can work ahead and have more free time later in the mod.

Final Research Paper (40%) – For this course, the major component of your grade is an original quantitative research paper that uses the data analysis skills that you learn throughout the semester. As the semester progresses, you will select a research question, write a *short* literature review, develop hypotheses, test those hypotheses, and write up your results.

This is not an easy assignment, and it is likely a format that you have not written extensively before. That's ok! Struggling with this assignment is normal, but it is a key component of growing as a college student in the social sciences. However, this is most definitely <u>NOT</u> an assignment that you should wait until the last minute to write. This will be incredibly stressful and result in a very poor paper. Writing with data is difficult, but you will be a better writer and student after practicing these skills.

While the individual pieces of the paper are due at different times throughout the semester, you are graded on the final, edited draft that you put together. You'll notice that the individual pieces of the paper are marked "Required (No Grade)." These can be thought of as low stakes requirements that give me a chance to give feedback for revisions. In order to receive full credit on your paper, you must turn in all of these components, even though your performance on these assignments does not factor into your final paper grade. Failing to turn in these assignments will lower your final paper grade by 1/3 of a letter grade for each missing piece. For instance, if your grade for the entire paper was a B+, but you failed to turn in your research ideas, your final grade would be a B. If you were missing both the research ideas and literature review, your B+ would become a B-.

Participation and Attendance (10%) – The participation portion of your grade includes regular attendance in class, completion of in-class activities, participation in class discussions, and asking questions during class.

Half of this grade is based off of participation in class, as outlined above. I give very few As for participation, as I find students tend to have varying levels of participatory engagement and involvement with the discussion. However, I would very happily give everyone an A if you all are active discussion participants.

The other half of this grade is based purely off of attendance. All students are expected to attend our class sessions, either virtually or in-person. Since some students may be unable to participate synchronously with the class, there is an option to write a two-page reflection based off of the videos and readings instead of attending the class sections. ***These reflections will be due by Sunday at 11:59 PM.***

I will hand out a sheet for everyone to sign in at the start of class. If you are late to class, please check with me after class to make sure I've recorded your attendance for the day. There are 25 days in the semester that we will meet as a class, and I will use the following scale to determine your attendance grade:

I will use the following scale to determine your attendance grade. Remember, if you cannot attend the class, you can watch the video of the session and write a reflection paper instead. Thus, there is no excuse to not receive full credit for this portion of the class!

A	0 – 2 absences
B	3 absences
C	4 absences
D	5 absences
F	6 or more absences

Grade Scale:

A	93-100		C	73-76
A-	90-92		C-	70-72
B+	87-89		D+	67-69
B	83-86		D	63-66
B-	80-82		D-	60-62
C+	77-79		F	<60

Grading – On some assignments, you may receive a grade of B+/A- or something like that. This is just my shorthand way of assigning a number grade between two letter grades. Thus, an A grade is recorded in the grade book as 100 points while an A- grade is recorded as 92 points. If I think your work fell between these points, you may get an A-/A, which would be recorded as 96 points. So a A-/A is technically an A grade, but in the middle of the A range instead of the high end.

When calculating final grades, I always round up. So an 88.7% in the class becomes an 89% (B+), but an 89.1% would be rounded up to a 90% (A-).

Late Work – Assignments are due the day they are listed as due at the specified time. Late work can be turned in for half-credit. Thus, if you turn in a quiz late and received a 90% grade, your grade on this quiz would be a 45%.

Week 1 (October 19 – October 25)

Schedule:
    Monday, October 19
        Syllabus and Introduction
        Richardson Hall or Virtually, 10:15 – 11:15 AM

    Tuesday, October 20
        Lecture and Discussion
        Richardson Hall or Virtually, 9:30 – 11:30 AM
        Readings:
            Political Science (MUTT)*
            Research Design (MUTT)*
            Shively Ch 1*
            Shively Ch 2*

    Wednesday, October 21
        Stata Tutorial
        Richardson Hall or Virtually, 10:15 – 11:15 AM
        Readings:
            Pollock Ch 1

    Thursday, October 22
        Lecture and Discussion
        Richardson Hall or Virtually, 9:30 – 11:30 AM
        Readings:
            Baglione Ch 4*
            Levels of Measurement (MUTT)*
            Johnson & Reynolds Ch 4*

    Sunday, October 25
        DUE @ 11:59 pm: Online Reading Quiz
        DUE @ 11:59 pm: Research Ideas

Week 2 (October 26 – November 1)

Schedule:
> Monday, October 26
>> Stata Tutorial
>> Richardson Hall or Virtually, 10:15 – 11:15 AM
>> Readings:
>>> Pollock Ch 2

> Tuesday, October 27
>> Lecture and Discussion
>> Richardson Hall or Virtually, 9:30 – 11:30 AM
>> Readings:
>>> Jaisingh Ch 2*
>>> Jaisingh Ch 3*

> Wednesday, October 28
>> Stata Tutorial
>> Richardson Hall or Virtually, 10:15 – 11:15 AM
>> Readings:
>>> Pollock Ch 3

> Thursday, October 29
>> Lecture and Discussion/Work Day
>> Richardson Hall or Virtually, 9:30 – 11:30 AM
>> Readings:
>>> Johnson & Reynolds Ch 4 (Review)*
>>> Varieties of Data (MUTT)*
>>> Pollock Textbook Ch 4*

> Sunday, November 1
>> **DUE @ 11:59 pm: Online Reading Quiz**
>> **DUE @ 11:59 pm: Homework 1, 2, and 3**
>> **DUE @ 11:59 pm: Research Question and Variables**

Week 3 (November 2 – November 8)

Schedule:
    Monday, November 2
        Stata Tutorial
        Richardson Hall or Virtually, 10:15 – 11:15 AM
        Readings:
            Pollock Ch 4

    Tuesday, November 3
        NO CLASS – ELECTION DAY!

    Wednesday, November 4
        Stata Tutorial
        Richardson Hall or Virtually, 10:15 – 11:15 AM
        Readings:
            Pollock Textbook Ch 5*
            Pollock Ch 5

    Thursday, November 5
        Lecture and Discussion/Work Day
        Richardson Hall or Virtually, 9:30 – 11:30 AM
        Readings:
            Pollock Textbook Ch 6*
            Baglione Ch 5*

    Sunday, November 8
        DUE @ 11:59 pm: Online Reading Quiz
        DUE @ 11:59 pm: Literature Review OR Annotated Bibliography

Week 4 (November 9 – November 15)

Schedule:
> Monday, November 9
>> Stata Tutorial
>> Richardson Hall or Virtually, 10:15 – 11:15 AM
>> Readings:
>>> Pollock Ch 6

> Tuesday, November 10
>> Lecture and Discussion
>> Richardson Hall or Virtually, 9:30 – 11:30 AM
>> Readings:
>>> Johnson & Reynolds Ch 13*
>>> Johnson & Reynolds pg. 527 – 568*

> Wednesday, November 11
>> Stata Tutorial
>> Richardson Hall or Virtually, 10:15 – 11:15 AM
>> Readings:
>>> Pollock Ch 8

> Thursday, November 12
>> Work Day
>> Richardson Hall or Virtually, 9:30 – 11:30 AM

> Sunday, November 15
>> **DUE @ 11:59 pm: Online Reading Quiz**
>> **DUE @ 11:59 pm: Homework 4, 5, and 6**
>> **DUE @ 11:59 pm: Hypotheses, Data, and Methods**

Week 5: (November 16 – November 22)

Schedule:
 Monday, November 16
   Stata Tutorial
   Richardson Hall or Virtually, 10:15 – 11:15 AM
   Readings:
     Pollock Ch 9

 Tuesday, November 17
   Lecture and Discussion/Work Day
   Richardson Hall or Virtually, 9:30 – 11:30 AM
   Readings:
     Johnson & Reynolds pg. 568 – 593*

 Wednesday, November 18
   Stata Tutorial
   Richardson Hall or Virtually, 10:15 – 11:15 AM
   Readings:
     Pollock Ch 10

 Thursday, November 19
   NO FULL CLASS SESSION
   Individual Paper Meetings

 Sunday, November 22
   DUE @ 11:59 pm: Online Reading Quiz
   DUE @ 11:59 pm: Homework 8, 9, and 10
   DUE @ 11:59 pm: Results and First Draft

Week 6 (November 23 – November 29)

Schedule:
     Monday, November 23
          NO FULL CLASS SESSION
          Individual Paper Meetings

     Tuesday, November 24
          NO FULL CLASS SESSION
          Individual Paper Meetings

     Wednesday, November 25
          NO CLASS – THANKSGIVING

     Thursday, November 26
          NO CLASS – THANKSGIVING

Week 7 (November 30 – December 7)

Schedule:
      Monday, November 30
            Virtual Work Day
            Virtually, 10:15 – 11:15 AM

      Tuesday, December 1
            Watch and Discuss Freakonomics (Bad Data)
            Virtually, 9:30 – 11:30 AM

      Wednesday, December 2
            Extra Credit Presentations
            Virtually, 10:15 – 11:15 AM

      Thursday, December 3
            Extra Credit Presentations
            Virtually, 9:30 – 11:30 AM

      Monday, December 7
            DUE @ 12:00 PM (NOON): Final Research Paper

Attendance: Regular attendance is vital for your success in this course. I understand, however, that sometimes circumstances prevent you from coming to class. Missing one class will not destroy your grade; missing several will.

Grade Changes: Any appeals of a grade must be made at least **24 hours after** I hand back an assignment or exam. If you would like to appeal the grade you got on an assignment, prior to meeting with me you must submit a written statement detailing why you think your grade should be changed. I will then meet with you to discuss your statement and why you think your grade should be changed.

If I make a mistake in totaling your grade for an exam or assignment (e.g. I added the points up incorrectly) then you do not need to write a statement or wait 24 hours. Just talk to me after class or during office hours and I'll double check and fix the mistake.

Contacting the Professor: I encourage you to contact me with questions and concerns about the course, readings, and assignments. In general, quick clarification questions can be handled over email. More in-depth questions are best discussed in person during my office hours, where we can have an actual conversation. If my office hours conflict with your class or work schedule, I am available by appointment as well.

Please allow a full 24 hours for an email response. Often, my responses will be quicker than this, but do not send multiple emails about the same request until 24 hours have passed. I cannot guarantee that if you email me right before an assignment or exam that I will be able to answer your question in time, so please make sure and email me early if you have a time-specific question.

Extra Credit and Retakes: There is no scheduled extra credit in this course. You may not retake quizzes. There may be opportunities for extra credit, however.

Disability Services and Accommodations: Students with diverse learning styles and needs are welcome in this course. In particular, if you have a physical, psychological, medical, or learning disability or health consideration that may impact your coursework and/or require accommodations, contact Learning Enrichment and Disability Services (LEADS) located on 2nd floor Pearsons (north side), 608-363-2572, learning@beloit.edu or through olesena@beloit.edu. For accommodations in my class, I will receive an Access Letter from the Director of LEADS and then we will discuss how to implement the accommodations. Contact that office promptly; accommodations are not retroactive.
Every effort will be made to give you agency over disclosure of your disability status. Confidentiality is maintained to the extent possible but at times others need to know to some information to provide you appropriate accommodations.

Free peer tutoring is available for most classes. All tutoring in the fall will be done online. For a tutor, apply by going to your Portal, to the Student Life tab, and then apply using the Tutoring Forms (on left) and Request a Tutor. If you have any questions, contact LEADS.

Inclusivity: *Inclusivity* is a demonstration of equity and social justice through awareness, understanding, and respect for the differences in identity, culture, background, experience, and socialization, and the ways in which these forms of difference impact how we live and learn. Inclusivity requires equitable, institution-wide representation and access to resources. In practice, this manifests itself by each individual being aware of, committed to, and responsible for the well-being and care of all students, staff, and faculty.