Political Analysis (PLS 300-01) Winter 2013

Class Location: Mondays in Mackinac Hall B1138 (a regular classroom) and Wednesdays in MAK A2151 (A computer lab classroom)
Class Time: 4:30 – 5:45 p.m.
Professor: H. Whitt Kilburn, Ph.D.
Office: 1103 AuSable Hall
Office Telephone: (616) 331-8831
Email: kilburnw@mail.gvsu.edu
In person Office Hours: Mon and Wed: 1-3:00pm and by appointment. Virtual hours when I'm logged onto GVSU Gmail chat.
Course Websites: For posting your work, taking quizzes and all else beyond lab assignments: through `http://mybb.gvsu.edu`. Everything related to data analysis assignments, handouts, instructions: `http://faculty.gvsu.edu/kilburnw/PLS300.html`.

This course provides an introduction to fundamental concepts in empirical research methodology for political science. There is much to be learned about research methods by actually doing research, rather than reading about it. We will do so. But first, rather than learn by trial and error, we will identify some principles that should inform empirical political science research at its inception. In this course we aim to answer a few questions: What is scientific research in political science, and what should it accomplish? How should it be conducted? Why do political scientists disagree about the characteristics of valid and important work? Because this course is the first required PLS course for B.S. cognate students in political science, it will focus upon the quantitative study of politics.

We will read what others have written on the subject of quantitative research methodology and will focus our attention on developing fundamental skills in four main areas: 1) the analytical review of research literature, 2) theory development and hypothesis testing, 3) data organization and analysis, and 4) research writing and oral communication. The third area will require you to draw upon what you have learned in Statistics 215; for about half of the semester we will practice fundamental skills in the application of data analysis to the study of politics. Assignments will include a semester long original research paper, numerous in-class and homework problems, an oral presentation, and in-class examinations.

Course texts

Asher, H. 2012. *Polling and the Public: What Every Citizen Should Know.* Eighth Edition. Washington, DC: CQ Press.

> A textbook focusing specifically on public opinion polling. Please purchase the most recent (eighth) edition as it reviews current developments in new statistical sampling and survey mode (Internet versus face-to-face, for example) methodologies.

Meys, J. and A. de Vries. 2012. *R for Dummies.* (2nd edition). New York: For Dummies.

> Meys and de Vries book is exactly as titled. We will use it as one source for learning about the statistical software, R, you will learn in class. You should begin working through each of the chapters on your own. Specific pages will be assigned in class from time to time.

Pollock III, P. H. 2012. *The Essentials of Political Analysis.* Fourth Edition. Washington, DC: CQ Press.

> Pollock's textbook will be our main textbook throughout the course, covering different aspects of social research methodology as applied in political science. To pass the course, you must carefully read each chapter as assigned and complete the data analysis exercises that complement it in the computer lab.

scholarly journal articles: Articles from scholarly journals will be assigned throughout the semester, paired to a reading assignment from Pollock or Asher. All are available on line, most from library databases. You will apply your own library research skills to download a PDF copy of each article, print it out, and bring it to class.

other suggested reading: A series of books on the visual presentation of information are available from the Zumberge library: Nancy Duarte, *Slideology: The Art and Science of Creating Great Presentations*; and Edward Tufte, *The Cognitive Style of PowerPoint* and *The Visual Display of Quantitative Information*. These references are excellent resources for preparing oral presentations and developing graphics. You should consult these books in preparation for your research presentation.

statistical data analysis and visualization software We will spend some time reviewing fundamental concepts of statistical inference through paper and pencil exercises. And we will use some online data analysis resources. But for most analyses of data, we will use a software application called R, which is a freely available application for managing, analyzing, and displaying quantitative data. It is widely regarded as the emerging *lingua franca* of data analysis.[1] And it is very popularly used in political science. Given the sea of information in which we live our lives, being skilled in making sense of data is an essential liberal arts skill. Our use of R and other resources will help you to learn these skills and to interpret the work of others. (And on multiple occasions, I have received emails and phone calls from slightly anxious GVSU students on an internship, looking for help with their assignment to "do something with the data". So let's learn these skills now.) Nevertheless, the learning curve is steep. So you will need to be patient and persistent. But the rewards for doing so are great. In the computer labs, R is located under "Departmental Applications" folder "Statistics".

R tutorial website: As part of your data analysis journals, from time to time you will be expected to complete the lessons on R at 'code school', `http://www.codeschool.com/courses/try-r`. You can work at the lessons on your own pace, but by the end of the semester you should have posted all of your 'achievement badges' to your data analysis journal. More specific instructions on how this is done will be provided in class.

Schedule and Activities

Mondays and Wednesdays On Mondays, we will meet in the regular classroom to discuss the big concepts and ideas in social research methodology. For Monday classes, a series of reading assignments are due, both from the Pollock textbook and either Asher or scholarly journal articles. Wednesdays will be spent in the computer classroom to refine our skills at the analysis of large datasets. Data analysis assignments, either based on paper-and-pencil, or in use of statistical software, will be assigned these days.

Data Management and Analysis Each week of class will involve a homework assignment, either doing data analysis problems, reflecting on concepts from Pollock, or a combination of both. Approximately ten data analysis assignments will be distributed throughout the semester. A descriptive list of the assignments will be posted on Blackboard.

These assignments will completed and submitted as an online journal of data analysis, posted and updated throughout the semester. Each student will have a journal on Blackboard, each one freely viewable to other students. You are all welcome to work collaboratively on the data analysis assignments, in the sense that you decide collectively how to best answer each question, exchange tips and troubleshoot problems. Each student, however, must post their work to their own individual journal. So you can not simply copy and paste someone else's work to your own journal. (Doing so would be an honor code violation.)

Reading Questions For most Monday class meetings, you will be expected to come to class having answered a series of questions on the assigned readings. Your answers must be *type-written*, turned in via hard copy when directed during the class session.

Research Paper You will be expected to write a research paper on an assigned topic. The project will involve defining a research problem, conducting a literature review, outlining a theory, collecting data,

---

[1] Ashlee Vance, "Data Analysts Captivated by R's Power ", *New York Times*, January 7, 2009, page B6.

writing hypotheses, and testing the results using the quantitative data analysis skills we will develop. An alternative emphasis in the research paper is to plan a project that involves a significant amount of data collection and organization, such as comparing voting returns across an old and newly re-drawn congressional district. Or perhaps analyzing geographic variation in school performance metrics collected by the State of Michigan. There are many possibilities. This research paper is required of all students. You will present your research paper to the class at the end of the semester. A paper assignment sheet will be distributed in class.

Research Critique You will be expected to write one summary memo critiquing the application of research methods we study in class. The subjects of the research critiques appear in the syllabus.

When turning it in, follow these guidelines: The research design critique is intended for you to apply your knowledge and skills evaluating social/political research to a 'real-life' application. The assignment is not meant to be a major paper writing assignment, although you should plan to write approximately (no more than) 4 double-spaced pages.

In your memo, you should develop a thesis — your perspective on the research. And a good approach is to make sure you include most of the items below:

1. an identification of the research question
2. a statement of the key hypotheses
3. a discussion of the key theoretical claims
4. a discussion of how major theoretical concepts are empirically measured
5. a description of how data are collected, and causal claims established, in a way that provides empirical evidence bearing on the theory, and in particular whether the study successfully controls for problems of 'spuriousness'.
6. A discussion of what the statistical tests are intended to accomplish and what is found in the results.
7. a summary of the overall results of the studies, and a discussion of the importance of the results.

Examinations A midsemester and examination will cover ideas in research design and data analysis.

in-class and homework activities There will be frequent in-class and homework exercises. The exercises will be announced in class. To receive credit for each one, you must be prepared to turn in the assignment when collected. Late assignments may be submitted for half credit (50%), up to one week past the due date. Work not completed at all receives a 0%.

General Policies and Procedures

I will hold you accountable to high standards. Beyond that, there are a few key things you should know about my expectations of you:

1. Most important of all, while I do not take attendance, I do keep track of tardiness and participation. I expect you to arrive to class on time and actively participate. The class suffers when any student routinely skips class or is apathetic about assignments. If you are in class, I expect you to *be in class*. So please do not sit in your desk, preoccupied with your phone. The same policy applies to laptops; avoid using your laptop to "take notes". But if you insist on watching cat videos throughout class (as in, "But I'm just taking notes!"), don't expect any sympathy from me when you encounter difficulties in the course.

2. Assignments should be turned in by the deadline. There are no make-ups for any work assigned and completed in-class, except for the exams, which must be arranged ahead of time. I do not accept assignments via email. Assignments must be turned in via hard copy or Blackboard, as directed.

3. You should *always* bring a copy of the assigned reading with you to class. Print out copies of the articles from JSTOR and other online sources and bring those too. Just like for any other upper-division course in the PLS department, you should always have the reading with you in class.

4. If you believe you will have trouble with the course, I encourage you to call an academic counselor at the Advising Resources and Special Programs Unit, 331-3588.

Grades

Periodic Grading of Data Analysis Journals 20%
Homework and In-class Assignments 20%
Research Design Critique 10%
Mid-Semester Examination 20%
Presentation 5%
Research Paper 25%

Unless standardized scores are necessary, the grading scale will be:

A	93-100	A-	90-92
B+	87-89	B	84-86
B-	80-83	C+	76-79
C	72-75	C-	70-72
D+	65-69	D	60-64
F	<60		

Code of Academic Integrity: I expect everyone to abide by the GVSU code of conduct regarding academic honesty. You should consult the student handbook and GVSU student bulletin for relevant policies about academic honesty.

Accommodations: If there is any student in this class who has special needs because of a learning, physical, or other disability, please contact the Disabilities Support Services (DSS) Program at 331-3588.

HOW TO SUCCEED IN THIS COURSE

1. Studiously avoid last-minute preparation and complete all assignments.
2. Attend every class session.
3. Participate regularly in class discussions.
4. Talk to me during office hours about any concerns or to clarify expectations.

Schedule

Progress throughout the course readings depends partially on lab assignment completion, class comprehension of concepts, and other factors due to our split schedule between computer lab and regular classroom. Minor changes to the syllabus should be expected.

Data analysis labs are distributed on the day appearing next to each assignment, and are due within one week.

All URLs are active, clickable links in the PDF syllabus. You should complete the reading assignments by the date immediately next to or above each chapter or article.

1 Course Overview, Brief Quiz, and Introduction to R

Monday, 1/7: Quiz and introduction to course

Wednesday, 1/9: Computer lab meeting today. *Lab assignment distributed in class.* Arrive on time, or else you will fall behind and it will be very difficult to catch up.

For Wednesday's class, read the first chapter of *R for Dummies* and complete the first Level of 'Try-R' Code School. Be prepared to post your 'merit badge' to your lab journal, which we will access in class.

2 Concept Measurement, Univariate and Bivariate Data Visualizations

Monday, 1/14 : Introduction and Chapter 1, "The Definition and Measurement of Concepts", Pollock.

Poe, Steven C. and C. Neal Tate. 1994. "Repression of Human Rights to Personal Integrity in the 1980s: A Global Analysis." *The American Political Science Review.* 88(4):853-872.

Reading Questions:

1. What is the intellectual puzzle — the research question — addressed by Tate and Poe? That is, what do they want to study?

2. How do Tate and Poe define "human rights abuses" , and why do they focus specifically on a subset of rights termed "threats to personal integrity"? (For this second question, you should focus on the reasons beyond their interest in the subject of personal integrity. Discuss why it is necessary for their research — in order to find the factors causally related to human rights abuses.)

3. What sources of data do they identify to measure whether, and how frequently, human rights abuses have occurred? Please be specific.

4. Which factors do they find are causally related to human rights abuses, and which are not? In a general, conceptual sense — try to understand the statistics the best you can —- how do they know this?

Wednesday, 1/16 : Complete Level 2 at CodeSchool.com. Read Chapter 2 of *R for Dummies.*

3 Describing Variables

Monday, 1/21 : No classes held — MLK Holiday

Wednesday, 1/23 Read Pollock Chapter 2, "Describing Variables and Making Comparisons". This chapter should review what you already learned in Statistics 215 or its equivalent. *Lab assignment distributed in class.* Keep working through *R for Dummies.*

4 Hypotheses and Theories in Political Science Research

Monday, 1/28 : Chapter 3, "Proposing Explanations, Framing Hypotheses, and Making Comparisons", Pollock.

Zuckerman, A. S. " What We Mean When We Call Political Science a Science". On Blackboard Course Documents.

Reading Questions (both articles are due today)

1. According to Zuckerman, what are the defining characteristics of "political science" as a "science"?

2. How, according to Zuckerman, does it differ from science in fields such as Chemistry of Physics, and how is it similar? (The author does not directly address this question in these terms, but addresses the subject matter.) Provide specific examples of the

Blattmann, Christopher. 2009. "From Violence to Voting: War and Political Participation in Uganda." *American Political Science Review* 103(May):231-247.

1. What is the "research question" addressed by Blattmann?
2. What is Blattmann's theory? Explain it in four sentences.
3. What are two specific hypotheses tested by Blattmann? Write each hypothesis in one complete sentence.
4. In testing his theory, what factors (or other independent variables) does Blattmann take care to eliminate as alternative sources of explanation?
5. Why does the situation in Uganda present a unique opportunity to eliminate these sources of alternative explanation? (Hint – it has to do with how children were recruited.)

Wednesday, 1/30 : *Lab assignment distributed in class.*

Optional reading:

See the symposium on what political science has learned about politics: "APSA Presidents Reflect on Political Science: Who Knows What, When, and How?" from 2005 in *Perspectives on Politics* 3(2), pp. 309-334.

On public (National Science Foundation) support for political science research: Cohen, Patricia. "Just How Relevant is Political Science?" *The New York Times*, October 19, 2009. `http://www.nytimes.com/2009/10/20/books/20poli.html`. Also, see economist and NYT left-wing columnist Paul Krugman's observations about Senator Coburn's amendment: `http://krugman.blogs.nytimes.com/2009/10/08/the-coburn-amendment/`.

5   Research Design I: Experimental Research

Monday, 2/4 : Introduction and experimental research sections on Chapter 4, "The "How Else?" Question: Making Controlled Comparisons" Pollock.

Nelson, Thomas E., Rosalee Clawson, and Zoe M. Oxley. 1997. "Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance". *The American Political Science Review* 91:3 567-583.

Excerpt from Campbell, D. T. and J. Stanley. 1963. "Experimental and Quasi-Experimental Designs for Research " On Blackboard Course Documents.

Reading questions will be announced during a prior class.

Wednesday 2/6 : *Lab assignment distributed in class.*

6   Research Design II: Non-Experimental Research, Sampling, and Survey Research

Monday, 2/11 : Remainder of Chapter 4, Pollock.

Chapters 1-2 of Asher, *Polling and the Public.*

Reading Questions:

1. In chapter 1, what are the key themes — or concerns —- that confront polling today?
2. What are non-attitudes, and why are they potentially problematic for survey research?
3. What are strategies for survey researchers to cope with non-attitudes?

One option for a Research Design Critique: When good polls go bad. The most recent Minnesota Governor's race was close enough for an official recount. Yet one pre-election poll by a political scientist and psychologist at the University of Minnesota publicly called the race for Dayton (the Democrat), estimating that he was way ahead of the Republican. Their experience is a cautionary tale of what can go wrong in contemporary election polling, even among well-funded, knowledgeable professionals. See a description of their poll `http://www.minnpost.com/braublog/2010/12/17/24352/mprhumphrey_institute_poll_review_too_many_612s` and the results of two reviews, an internal review `http://minnesota.publicradio.org/documents/news/2010/12/HHH_MPR_Internal_Report_of_Polls_2010_Final.pdf`, and an external review of the poll by a director of the Gallup poll and an ethics compliance official for the American Association for Public Opinion Research `http://minnesota.publicradio.org/documents/news/2010/12/MPR-HHH_Polls_2010_Newport_Review.pdf`. For the research design critique, write up an approximately 2 page (single spaced) memo (addressed to me), summarizing and critically each of the reports linked above. The memo should be posted to Course Documents within two weeks of this date.

Wednesday, 2/13 : *Lab assignment distributed in class*

7   The Problem of Control, Case Selection, and Interaction

Monday, 2/18 : Chapter 5 "Sampling and Inference", Pollock.

Chapters 3-5, *Polling and the Public*. Reading questions announced in class.

1. How could question wording and context effects in surveys be explained by the belief sampling model of opinion formation? Discuss an example from Chapter 3.

2. A common criticism of polling is, "I've never been polled before. How can polls be correct measures of public opinion?" Why is it that samples can provide valid measures of opinion, but at the same time can go astray?

3. Contrast the major survey "modes" (data collection procedures) for collecting survey data. How do interviewers and the survey mode in general, effect the collection of survey data?

Optional reading **One option for a Research Design Critique**: The validity of much research on the effectiveness of charter schools, compared to their 'regular' counterparts, hinges on the ability of researchers to assess educational outcomes across the two types of schools, while controlling for student background and ability as they entered the schools. One of the more rigorous attempts to control for differences, from a researcher at Stanford's Hoover Institution, found that only about 17 percent of charter schools from a pooled national sample produced better outcomes. `http://credo.stanford.edu/reports/MULTIPLE_CHOICE_CREDO.pdf` . A recent news article reviewing these and other studies, is here. `http://www.slate.com/id/2302578/`. For the research design critique, write up an approximately 2 page (single spaced) memo (addressed to me), summarizing and critically evaluating the "CREDO" study. The memo should be posted to Course Documents within two weeks of this date.

Wednesday, 2/20 : *Lab assignment distributed in class.*

8   Polling Summary and Midsemester Examination

Monday, 2/25 : Chapters 6-9, *Polling and the Public*.

Reading Questions:

1. Contrast the major themes identified by Asher in the chapters on media coverage of polls and the use of polls in elections. What do these themes indicate "every citizen should know" with respect to polling in the current 2012 presidential election? (Please discuss what you have learned from these two chapters, and how it should affect your interpretation of polls from the 2012 election.)

2. What are Asher's principles to keep in mind when analyzing polls?

Wednesday, 2/27 : **Midsemester Examination in class.**

SPRING BREAK: March 3-10

9 Intelligently Applying Tests of Significance and Association

Monday, 3/11 : Chapters 6-7, Pollock.

Wednesday, 3/13 : *Lab assignment distributed in class.*

10 Intelligently Applying Tests of Significance and Association, II

Monday 3/18 − Wednesday 3/20 : Readings announced in class, depending on progress.

11 Review and Introduction to Linear Regression

Monday, 3/25 : Chapter 8, Polock

   Article applying linear regression posted on Blackboard Course Documents, depending on class interest and progress.

Wednesday, 3/27 : *Lab assignment distributed in class.*

12 Intelligently Applying Multiple Regression Analysis

Monday, 4/1 : Chapter 8, Pollock, continued.

   Evans, Geoffrey and Stephen Whitefield. 1995. "The Politics and Economics of Democratic Commitment: Support for Democracy in Transition Societies". *British Journal of Political Science* 25:485-514.

1. Describe the data the authors collect: What is their unit of analysis, and where is it gathered? From what countries do they collect data?

2. Why do the authors apply multiple regression analysis?

3. How do the authors specify a regression model that enables a test of the importance of economic and cultural factors in explaining support for democracy?

4. In their analysis of the regression results, which set of factors appear more important in explaining support for democracy, and under which conditions?

Optional: And **one option for a Research Design Critique**: Simply put, are teachers overpaid? Some researchers at the American Enterprise Institute think so. `http://www.aei.org/papers/education/k-12/assessing-the-compensation-of-public-school-teachers/`. One evaluation of the research points you toward a good angle to pursue: `http://www.nytimes.com/roomfordebate/2012/01/02/are-teachers-overpaid/a-better-way-to-slice-the-data`. There are other responses in this NYT series, but not all address the research design.

Wednesday, 4/3 : *Lab assignment distributed in class.*

13   Complications to the Multiple Regression model

Monday, 4/8 – Wednesday, 4/10 : Readings will continue from the prior week. A lab assignment will be distributed in class.

14   Introduction to Logistic Regression Analysis

Monday, 4/15 :

Vazsonyi, A. T. and D. D. Jenkins. 2010. "Religiosity, Self-Control, and Virginity Status in College Students from the "Bible Belt' ". *Journal for the Scientific Study of Religion* 49(3): 561—568.

Reading questions:

1. Why do the authors apply logistic regression analysis?

2. How do the authors measure "religiosity"?

3. What is the effect of religiosity on virginity status? Does it exercise a statistically signficant effect? Substantively important?

4. Identify the entry in one of the tables of results that describes this effect. Which entry is it? Just identify the table number, the variable name, and the estimate of the magnitude of religiosity on virginity status.

Optional: And **one option for a Research Design Critique**: Should the State encourage new parents to install fans (ceiling fans, for example) in infant bedrooms? Explanations for Sudden Infant Death Syndrome (SIDS) have emerged through recent research, pointing toward the absence of air movement as a source of the syndrome. One study applying logistic regression identifies ceiling fans as a factor that dramatically reduces the risk. Coleman-Phox, K., R. Odouli, and L. De-Kun. 2008. "Use of a Fan During Sleep and the Risk of Sudden Infant Death Syndrome" *Archives of Pediatrics and Adolescent Medicine* 162(10):963-968. `http://archpedi.ama-assn.org/cgi/reprint/162/10/963`. Click "PDF" in the upper left side of window to download a copy of the article.

Wednesday, 4/17 : *Lab assignment distributed in class.*

Final Exam: Research Paper Presentations

When and Where *You are responsible for verifying the time of the final examination with the Registrar's calendar.* You will present your research paper to the class. Your research paper is due at the beginning of the final examination period.