

# Concepts and Methods in Political Science Research

COLBY COLLEGE  
GOVERNMENT 281  
FALL 2019

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Monday, Wednesday, Friday

10:00 – 10:50 a.m.

Diamond 241

## Overview and Aims

This course introduces students to the foundational theories and methodological approaches that make political science, scientific. Students will learn how rational inquiry into political phenomena differs from the ways in which we often discuss politics, and students will engage in a reasoned critique of that rational process to better cope with the limits of social science research. The scientific process is a distinct way of thinking, defined by how one asks *falsifiable* questions, develops *competing conjectures*, and *systematically* rules out alternative explanations with *empirical* observation. The course will cover a number of techniques that practitioners use to apply that process to theoretical problems, including: qualitative case studies, historical institutionalism, experimentation, survey research, content analysis, and statistical modeling.

The course is primarily designed to help students better understand and evaluate political science scholarship, which they will encounter in advanced seminars and courses in the department. We will anchor or abstract considerations of political science methodology in cutting-edge scholarship, but students will learn what it means to be a skeptical reader and a productive critic. As a result, this class will help you become a superior consumer of social science, wherever and whenever you might encounter it. Second, students will gain practical experience in conducting scientific research on social behavior, and this will prepare many students for more sophisticated research projects, including a senior thesis. Students will design their own research study, and work collaboratively to test an original hypothesis. Finally, students will demonstrate mastery of each of the methods introduced in this class through an engaged critique of published material, and efforts to replicate their findings. It is not expected that students will have experience with statistical modeling. This course begins with the fundamentals, and stresses how statistics and quantitative observation contributes to the many ways we scientifically study politics.

## Course Requirements and Grade Distribution

<u>Assignment</u>	<u>Due Date</u>	<u>Percent of Total</u>
Group Paper "Defense"	September 27	5%
Peer Review	December 4 & 6	5
Paper Proposal	October 4	10
Statistics Quiz	November 26	10
Attendance and Participation	Ongoing	15
Data Presentation	October 30/November 1	15
Midterm Exam	October 18	15
Final Paper	December 16	25

This class introduces you to the theoretical and practical elements of social science research. Your final evaluation is a combination of those two parts. Your performance on the midterm examination, the statistics quiz, and your ability to competently and willingly discuss your research (participation) will account for the theoretical component. I will evaluate your practical understanding of the course material primarily through the completion of a group research project. There are eight graded components that will comprise your final grade. Failure to complete or submit any of the following will result in a grade of "F" for the course:

*Attendance and Participation:* Attendance and participation is absolutely necessary at every class meeting. Your final grade is a reflection of your commitment to have completed all the readings for the class meeting and to participate actively in class discussion. I believe that good discussion requires consistent reference back to the text, so it is also necessary for you to have the reading material with you either electronically, or as a hard copy. Often times I will ask you to bring a short write-up to class (a paragraph, maybe two) or to complete an exercise following our class meeting that will assess your comprehension of the material. These are evaluated for thoroughness, and I will be mindful of the time you will need to plan for their completion. These are listed in the reading schedule and concept outline below. I encourage you to bring a laptop to class and to participate in the demonstrations, especially during the second half of the semester.

*Midterm Examination:* All students will sit for a midterm examination. The midterm will be an open-book, take-home exercise that you will complete the week prior to the fall recess. While open-book, you must complete the examination on your own (no collaboration). The midterm will assess basic competencies and ideas introduced during the first half of the semester. You must email me your responses by the date and time listed below.

*Statistics Quiz:* All students will take a short quiz that will evaluate their comprehension of basic statistical terminology and procedures. Students will have to interpret a statistical model, as presented in a published political science article. I will also ask you to identify and describe a dataset. You must email me your responses by the date and time listed below.

*Group Paper Defense:* Each student will join a research group of 2-3 students. By the end of September, each group must arrange a time to meet with me in my office to discuss their research. While the purpose of this meeting is to receive feedback on your research proposal, I will ask you to justify your project on three grounds:

- 1) What is the research question and why is it important?
- 2) What have other scholars said about your question and why are they wrong?
- 3) Why is your way of researching the question superior to previous attempts?

You should prepare to address each of these questions. I will schedule meetings for 30 minutes. This assignment is "pass/fail."

*Paper Proposal:* About a month after your group paper defense, each group will submit a paper proposal for a grade. Anything you write for the paper proposal can be used for the final paper, and I will consider your final paper alongside my comments and suggestions raised at this point. I will give you a more elaborate set of instructions for this assignment.

*Data Presentation:* Each group will give a short presentation (appx. 10-15 minutes) to the class on the progress of their research. We will select the dates for your presentation as soon as your

finalize your group's membership. The purpose of this assignment is to share with others the data that addresses your particular research question. Your grade comes from both your own presentation and your participation in other groups' presentations, by asking questions and offering helpful feedback. I will give you a more elaborate set of instructions for this assignment.

*Peer Review:* Our last two class meetings are reserved for peer-review and evaluation of your draft research designs. By this point in the semester, you should have a fairly polished final paper that addresses the components listed below. You will read and write comments on two other groups, and bring those comments to class to discuss.

*Research Paper:* Each group will write a 15-20 page final paper that

- a) considers a major political issue of the students' choosing;
- b) explains the study's significance;
- c) briefly reviews the relevant literature;
- d) outlines a hypothesis and a detailed plan for addressing those hypotheses;
- e) describes the data that address the plan for research;
- f) presents a tailored research instrument for data collection or statistical inference;
- g) tests their proposed hypotheses and confirms or disconfirms the proposed relationship;
- h) discusses the implications of their test for political life.

You are strongly encouraged to speak with me about your papers throughout the semester. I will happily assist you in developing your ideas and in identifying additional resources that might help you. I want you to walk away from this class with a solid piece of writing that could develop into a senior thesis, or potential writing sample for employment. I will give you a more elaborate set of instructions for this assignment.

### **Readings, Absences, and Participation**

This course will rely almost exclusively on articles written by academic political scientists. We will read these to see what works and, importantly, what does not work in scientifically studying politics. Bring them to class.

You will also notice that we will read a number of essays written by the instructor and other professors in this department. I expect students to come to class and openly share their own research, to answer questions about it, and to share the difficulties they are encountering. I and my colleagues are no different. Research is a conversation, and by assigning this work, I hope to engage you in an on-going conversation about our collective research agenda, and the valid disagreement we can have about social science.

There is one book that you must purchase for this course. I have asked the bookstore to procure used copies, but it is also available online.

Charles Wheelan. 2013. *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.  
[ISBN: 978-0393347777](https://www.wiley.com/9780393347777)

All other readings are posted online for you to download. *NB: The syllabus available online and available for download is “clickable” and will direct you to PDF copies of each week’s non-textbook readings.*

As mentioned, participation and attendance at every class meeting is expected. Consider “participation” broadly. Coming to each class and raising a question or two at the beginning is an effective way to start a discussion. I expect that most of this material is new to you, and for many of the texts, there are different ways of interpreting the argument. In sum, showing up having read the material is probably not sufficient for most students; write down your questions, concerns, or points as you read. Prepare to talk.

### **Other Policies**

*Grading:* Questions and concerns about a grade do arise. If this is the case, feel free to contact me, but no sooner than 24 hours after you receive a grade. After that time, we will schedule an appointment to meet in person that is convenient for both of us. I will ask you to bring the original assignment as well as a typed explanation as to why your assignment should have received a better grade. I do this only to ensure that our conversation will be productive. My obligation back to you is that I will provide an exemplar assignment, which you can reference and consider. I do not accept late papers. But, if you need an extension on a paper, \*for any reason\*, just ask. Requests for extensions on papers must be received in writing, by email at least one week prior to the deadline. *NB:* The final paper has a hard-submission deadline set, in part, by the University’s requirements.

*Academic Honesty:* You are assumed to be familiar with the university’s policies on cheating and plagiarism and the potential penalties: <http://www.colby.edu/academicintegrity/>. If, in the course of writing an assignment, you have any questions about whether you have violated an academic integrity standard just ask; there is no penalty for being cautious.

*Your Well-Being:* If you or someone you know is struggling with gender, sexual, domestic, or other forms of power-based personal violence, there are many resources available through the *Office of the Dean of Students*: 207-859-4250.

As your instructor, and as a person, know that I care about you and your well-being and stand ready to provide support and resources as I can. As your instructor, I am a responsible employee, which means that I am required by College policy and federal law to report what you tell me about power-based personal violence to the University’s Title IX Coordinator, who will ensure that you receive the resources and support you need, while also reviewing the information presented to determine whether further action is necessary to ensure survivor safety and the safety of the University community. More generally, if you are facing any other problem that affects your performance in class, informing me immediately can help us resolve potential problems before they interfere with your work. In addition, you should contact your Class Dean, who can help you balance your work and whatever issues you may face throughout the semester.

## Reading Schedule and Concept Outline

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*Week of September 4th*

### Can We Scientifically Evaluate Politics?

#### Wednesday: Science, Non-Science, and Politics

To Do: Find a peer-reviewed journal article from one of the following sources that you find interesting (clicking takes you to the Colby Library's Political Science Database):

- a) [\*American Political Science Review\*](#)
- b) [\*American Journal of Politics\*](#)
- c) [\*Political Science Quarterly\*](#)
- d) [\*The Journal of Politics\*](#)

Read the abstract and introduction (maybe conclusion), and write 1-3 sentences on each of the following:

- a) Why did you find the article interesting?
- b) What are the author's trying to prove?
- c) In your opinion, what makes it "scientific"?

Come to class prepared to read your answers out loud to the class.

#### Friday: The Qualities of Scientific Research

To Do: After reading the two articles below, write a paragraph that *evaluates* the ways in which they are different. Which one offers the superior answer to the question? Come to class prepared to share your paragraph.

To Read: [Giacoma Chiozza. 2002. "Is There a Clash of Civilizations? Evidence from Patterns of International Conflict Involvement, 1946-97," \*Journal of Peace Research\* 39 \(6\): 7111-734.](#)

[Bernard Lewis. 1993. "Islam and Liberal Democracy." \*Atlantic Monthly\* \(February\): 89-98.](#)

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*Week of September 9th*

### Measuring Concepts and Testing Hypotheses

#### Monday: Concepts, Theories, and Operationalization

To Do: Take the following survey [HERE](#), to be used for information-gathering purposes only

To Read: [Robert B. Putnam. 2000. "Chapter 1: Thinking About Social Change in America." \*Bowling Alone: The Collapse and Revival of American Community\*. New York, NY: Simon and Schuster.](#)

Wednesday: Reliability and Construct Validity

To Read: [Robert Yeh, et al. 2018. "Parachute Use to Prevent Death and Major Trauma When Jumping From Aircraft: Randomized Controlled Trial." \*British Medical Journal\* 363:k5094.](#)

[Malcolm Gladwell. 2011. "The Order of Things: What College Rankings Really Tell Us." \*New Yorker\*, February 6.](#)

Friday: Hypothesis Testing

To Do: By 9:00 a.m. on Friday, email me a tenable hypothesis on any political phenomenon, which:

- a) clearly identifies an independent and dependent variable
- b) specifies a predicted relationship between the two
- c) has implications for a broader theory of political life

To Read: [William Runyan. 1981. "Why Did Van Gogh Cut Off His Ear? The Problem of Alternative Explanations in Psychobiography." \*Journal of Personality and Social Psychology\* 40 \(6\): 1070-77.](#)

To Listen: Christopher Joyce. 2012. "Double-Blind Violin Test: Can You Pick the Strad?" *National Public Radio*, January 2. [LISTEN HERE](#).

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*Week of September 16th*

**Making Contributions to the Literature**

Monday: Resources at Colby College and Beyond

To Do: Meet at the Library for Class; Presentation by Bonnie Paige  
[bonnie.paige@colby.edu](mailto:bonnie.paige@colby.edu)

To Read: [Amelia Hoover Green. 2013. "How to Read Political Science: A Guide in Four Steps."](#)

Wednesday: Reading Academic Articles

To Do: Begin Working on Group Literature Review (see on-line handout)

To Read: [Christopher H. Achen and Larry M. Bartels. 2012. "Blind Retrospection: Why Shark Attacks are Bad for Democracy." \*Vanderbilt Working Paper Collection\* \(5-2013\).](#)

Friday: Synthesizing and Problematizing Knowledge

To Do: Each group member will find 3 articles for their project's literature review and synthesize independently. As group, they will synthesize all articles (6-9) to start their literature review and submit as a single document (by the end of the weekend). A synthesis addresses the following questions:

- a) What is the paper's argument?
- b) Why is the argument important for political science?
- c) How does the paper prove their argument (methods)?

- d) What are the weaknesses of the study?
- e) How does the paper's conclusion relate to my own theory?
- f) How does the paper relate to others in the field?

To Read: Three Model Research Paper Proposals (Identified On-Line)

[Steven Pinker. 2014. "Why Academics Stink at Writing." \*Chronicle of Higher Education\*, September 26.](#)

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*Week of September 23rd*

### **Internal and External Validity**

#### Monday: Internal and External Validity

To Read: [William Shadish, Thomas Cook, and Donald Campbell. 2001. "Chapter 2: Statistical Conclusion Validity and Internal Validity." \*Experimental and Quasi-Experimental Designs for Generalized Causal Inference\*. Belmont, CA: Wadsworth Publishing.](#)

[Nicholas F. Jacobs. 2018. "Building Robust Survey Experiments in Political Science: Or, 'How I Learned to Love the Null'." \*SAGE Research Methods Cases\*.](#)

#### Wednesday: Experiments in the Abstract and in the Survey Environment

To Do: Design an experiment that would test the hypothesis you propose in your group's research design. There are no financial or ethical constraints. The purpose of this thought experiment is to help you to specify the causal linkages in your research design.

To Read: [Nicholas F. Jacobs and B. Kal Munis. 2019. "Place Based Imagery and Voter Evaluations: Experimental Evidence on the Politics of Place." \*Political Research Quarterly\* 72 \(2\): 263-277.](#)

[Jason Barabas and Jennifer Jerit. 2010. "Are Survey Experiments Externally Valid?" \*American Political Science Review\* 104 \(2\): 226-242.](#)

#### Friday: Field Experiments and Natural Experiments

To Do: Over the next two and a half weeks, you will read examples of political science research that use different methods. Each article makes an argument about a socio-political phenomenon and its causes. You should come to class ready to:

- a) specify the author's argument(s);
- b) identify how the author proves/validates/tests that argument;
- c) evaluate the advantages and disadvantages of the method used.

To Read: [Carrie LeVan. "Breaking the Vicious Cycle: Effects of An Experimental Intervention to Increase Turnout Amongst Low Propensity, Low Status, Latino and Non-Latino Voters." \*Working Paper\*.](#)

[Andrew D. Bertoli. 2017. "Nationalism and Conflict: Lessons from International Sports." \*International Studies Quarterly\* 61 \(4\): 835-849.](#)

[Philip Zimbardo. 1972. "Pathology of Imprisonment." \*Society\* 9 \(6\): 4-8.](#)

**\*\*\* LAST DAY TO SCHEDULE MEETINGS FOR GROUP DEFENSE \*\*\***

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*Week of September 30th*

### **Qualitative Research Designs**

#### Monday: Case Selection

To Read: [James Richter and Walter F. Hatch. 2013. "Organizing Civil Society in Russia and China: A Comparative Approach." \*International Journal of Politics, Culture, and Society\* 26 \(4\): 323-347.](#)

[Kenneth A. Rodman. 2019. "When Justice Leads, Does Politics Follow?: The Realist Limits of Prosecutorial Agency in Marginalizing War Criminals." \*Journal of International Criminal Justice\* 17 \(1\): 13-44.](#)

[Barbara Geddes. 1990. "How the Cases You Choose Affect the Answers You Get: Selection Bias in Comparative Politics." \*Political Analysis\* 2: 131-145.](#)

#### Wednesday: Process Tracing

To Read: [Jennifer Yoder. 2010. "The Integration of Eastern German Political Elites Since 1989." \*German Studies Review\* 33 \(3\): 549-564.](#)

[Lindsay Mayka. Forthcoming. "The Origins of Strong Institutional Design: Policy Reform and Participatory Institutions in Brazil's Health Sector." \*Comparative Politics\* 51 \(2\): 275-294.](#)

#### Friday: Archival Work and the Historical Process

To Read: [Gareth Davies and Martha Derthick. 1997. "Race and Social Welfare Policy: The Social Security Act of 1935." \*Political Science Quarterly\* 112 \(2\): 217-235.](#)

[Vesla M. Weaver. 2007. "Frontlash: Race and the Development of Punitive Crime Policy." \*Studies in American Political Development\* 21 \(2\): 230-265.](#)

**\*\*\*Paper Proposal Due\*\*\***

**\*\*Proposals Due via Email by Friday, October 4th at 5:00 p.m.\*\***

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Week of October 7th

## Behavioral Research Designs

### Monday: Interviews and Focus Groups

To Do: Contact Colby ITS to download a copy of STATA on your personal computer:  
<https://www.colby.edu/its/support/>

To Read: [Sidney Milkis and Jesse H. Rhodes. 2007. "George W. Bush, the Republican Party, and the 'New' American Party System." \*Perspectives on Politics\* 5 \(3\): 461-488.](#)

[Katherine Cramer Walsh. 2012. "Putting Inequality in Its Place: Rural Consciousness and the Power of Perspective." \*American Political Science Review\* 106 \(3\): 517-532.](#)

### Wednesday: Content Analysis

To Read: [Martin Gilens. 1996. "Race and Poverty in America: Public Misperceptions and the American News Media." \*Public Opinion Quarterly\* 60 \(4\): 515-41.](#)

[Jayeon Lee and Young-shin Lim. 2016. "Gendered Campaign Tweets: The Cases of Hillary Clinton and Donald Trump." \*Public Relations Review\* 42 \(5\): 849-55.](#)

### Friday: Surveys

To Do: Identify a dataset that relates to your group research project. The data should be able to directly test your group project or relate to the methods you will use to answer your research question. The unit of analysis, selected variables, and units of measurement should be identified in the dataset (labels, variable names) or accompanying codebook. Have one group member email me the dataset with a short explanation of how you could use it for your project. The following resources will no doubt help, but speak with me if you are having difficulty:

- a) <http://www.icpsr.umich.edu/icpsrweb/ICPSR/>
- b) <http://thedata.org>
- c) <http://www.data.gov>
- d) <https://usa.ipums.org/usa/>
- e) <http://www.datazoa.com>

To Read: [Daniel M. Shea and Rebecca C. Harris. 2006. "Gender and Local Party Leadership in America." \*Journal of Women, Politics, and Policy\* 28 \(1\): 61-85.](#)

[L. Sandy Maisel and Walter J. Stone. 1997. "Determinants of Candidate Emergence in U.S. House Elections: An Exploratory Study." \*Legislative Studies Quarterly\* 22 \(1\): 79-96.](#)

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*Week of October 14th*

## **Descriptive Statistics and Graphing**

### Monday: Means, Medians, and Modes

To Do: Download the example dataset from the course website here.

To Read: Charles Wheelan. 2013. "Chapter 2: Descriptive Statistics." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

### Wednesday: Creating Tables and Cross Tabs

To Read: Charles Wheelan. 2013. "Chapter 3: Deceptive Description." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

[Edward Tufte. 1997. "Chapter 2: Visual and Statistical Thinking." \*Visual Explanations: Images and Quantities, Evidence and Narrative\*. Cheshire, CT: Graphics Press.](#)

### Friday: Creating Graphs (Time and Distribution)

To Do: In the dataset you identified, select three variables of interest (maybe an IV, DV, and control). Identify the mean, median, and standard deviation of those variables. Each member should email me a paragraph that identifies those values and substantively explains their meaning.

To Read: Charles Wheelan. 2013. "Chapter 7: The Importance of Data." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

**\*\*\*Midterm Examination\*\*\***

**\*\*Exams Due via Email by Friday, October 18th at 5:00 p.m.\*\***

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*Week of October 23rd*

## **Basic Probability**

### Wednesday: Probability I

To Read: Charles Wheelan. 2013. "Chapter 5: Basic Probability." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

### Friday: Probability II

To Read: Charles Wheelan. 2013. "Chapter 6: Problems with Probability." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

Dylan Matthews. 2016. "One of the Best Election Models Predicts a Trump Victory. Its Creator Doesn't Believe It." *Vox*, June 14.

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*Week of October 28th*

### **The Central Limit Theorem and Data Presentations**

#### Monday: Central Limit Theorem

To Read: Charles Wheelan. 2013. "Chapter 8: The Central Limit Theorem." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

#### Wednesday: Data Presentations I

#### Friday: Data Presentations II

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*Week of November 4th*

### **Correlation and Regression**

#### Monday: Correlation

To Do: Download the example dataset from the course website here.

To Read: Charles Wheelan. 2013. "Chapter 4: Correlation." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

#### Wednesday: Significance and Error

To Read: Charles Wheelan. 2013. "Chapter 9: Inference." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

#### Friday: Linear Regression

To Do: Using the dataset for your group's project, each member should email me a paragraph where they explain a correlated relationship between two variables (preferably their IV and DV). This paragraph should contain a substantive and statistical interpretation.

To Read: Charles Wheelan. 2013. "Chapter 11: Regression Analysis." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

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*Week of November 11th*

### **OLS Regression**

#### Monday: OLS Regression I

To Read: [Anthony Fowler and Andrew Hall. 2018. "Do Shark Attacks Influence Presidential Elections? Reassessing a Prominent Finding on Voter Competence." \*The Journal of Politics\* 80 \(4\): 1423-1437.](#)

Wednesday: Reading OLS Regression Results

To Do: Download the accompanying dataset from the article below here.

To Read: [Nicholas F. Jacobs and B. Kal Munis. "Anger from Afar: Place-Based Resentment and Contemporary American Elections." Working Paper.](#)

Friday: OLS Regression II

To Do: Using the dataset for your group's project, each member should email me a paragraph where they explain a regressed relationship between two variables (preferably their IV and DV). This paragraph should contain a substantive and statistical interpretation.

To Read: Charles Wheelan. 2013. "Chapter 12: Common Regression Mistakes." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

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*Week of November 18th*

**Multivariate Regression**

Monday: Comparing Variables in an OLS Regression Model

To Do: Download the data from the American Citizen Participation Study (1990) here.

To Read: [Pippa Norris. 1996. "Does Television Erode Social Capital? A Reply to Putnam." \*PS: Political Science and Politics\* 29 \(3\): 474-480.](#)

Wednesday: Multivariate Regression

To Do: Using the 2018 CCES dataset, design a model that replicates Norris' study of social capital and media usage. Come to class prepared to share the model (variable specification) and interpret the results.

Friday: How to Lie with Statistics

To Read: Charles Wheelan. 2013. "Chapter 13: Program Evaluation." *Naked Statistics: Stripping the Dread from the Data*. New York, NY: W.W. Norton and Company.

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*Week of November 26th*

**Meetings to Discuss Papers**

Monday: Reserved for Group Meetings & Statistics Quiz

\*\*\* THANKSGIVING BREAK \*\*\*  
\* NO CLASS THURSDAY \*

\*\*\*Statistics Quiz \*\*\*  
\*\*Quiz Due via Email by Tuesday, November 26th at 5:00 p.m.\*\*

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*Week of December 2nd*  
**Final Research Papers**

Monday: Final Papers and Group Meetings

To Do: By the start of class on Monday, each group should email me their final paper in its draft stage. This paper should identify each of the necessary sections outlined in the assignment instructions.

Wednesday: Peer Review I

To Do: Read the first paper for your peer-review. Bring two copies of your comments and questions to class.

Friday: Peer Review II

To Do: Read the second paper for your peer-review. Bring two copies of your comments and questions to class.

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**\*\*\* FINAL PAPERS DUE MONDAY, DECEMBER 16 at 9:00 a.m. \*\*\***