PS367: Climate Change: Science and Politics of a Global Crisis
Prof. Ronald Mitchell
Department of Political Science and Program in Environmental Studies

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<th>Time: Tues/Thurs 8:30-9:50</th>
<th>Office Hours: PLC-921, Tues/Thurs 11:30-1:00, by signup and appt.</th>
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<tbody>
<tr>
<td>Course Website on Canvas</td>
<td><a href="mailto:rmitchel@uoregon.edu">rmitchel@uoregon.edu</a>; Phone: 346-4880</td>
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COURSE DESCRIPTION
Climate change is the largest environmental problem facing the Earth. We are increasingly aware of the causes, impacts, and likelihood of climate change. Yet, recent international meetings on climate change suggest that the nations (and people) of the world are unwilling to take the actions that most scientists say are needed to avoid the most severe impacts of climate change. In short, the demand for action on climate change implied by most scientific evidence has not yet been matched by the supply of action from political leaders and policy-makers. This course will help you understand both the science of climate change and the factors that influence whether we make progress on this global crisis and the international, national, and local policies that can help.

The course looks at four major elements of climate change, as follows:

- **Understanding the science:** What do we know and what don’t we know about climate change? To what extent is it human-caused and how do we know? How does one assess the arguments of those who contend that human-caused climate change is occurring compared to those who contend the opposite?
- **Setting the agenda:** What has gotten climate change on the international policy agenda? What role has scientific evidence played? What role have nongovernmental organizations and activists played? What role have celebrities like Al Gore played? What factors and how have kept climate change off the policy agenda?
- **International responses to climate change -- negotiating an agreement:** Why have countries been willing to take action on climate change at some times and not others? Why are some states “leaders” on climate change and others “laggards”? What “actors and actors” help negotiations succeed or fail?
- **Non-international responses to climate change -- what actors other than countries are doing:** What actions are countries taking on their own, without international cooperation? What are multinational corporations, local communities, and individuals doing to address the problem?

REQUIRED COURSE MATERIALS
There are no required books for the course but there are many readings for each session, though most are brief. Readings will be on Canvas. Class depends on active student participation so, please, do the readings before class.

EXPECTED LEARNING OUTCOMES

- Understand key insights from a range of natural science and social science disciplines regarding a) the physical and chemical processes by which humans are believed to be influencing the global climate, b) the impacts that climate change is predicted to have for humans and the natural system, and c) the social forces that are fostering or inhibiting action to address climate change.
- Recognize the range of strategies to address climate change being used by individuals, nongovernmental actors, and governmental actors at the local, state, national, and international levels as well as the factors that contribute to or prevent their success.
- Demonstrate critical thinking and communication skills, including the use of counterfactuals, by writing a major research paper that requires using empirical evidence to assess theoretical claims about some aspect of the social science of climate change.

ESTIMATED STUDENT WORKLOAD
Student workload involves 120 hours for this 4-credit course. Class attendance requires 3 hours per week for 10 weeks (30 hours). This course also requires approximately 3 hours per week of reading (30 hours). The plagiarism assignment will require 1 hour. Assignment 1 on Graphing local climate trends will require 1 hour. Assignment 2 on “What drives CO2 emissions?” will require 2 hours. Assignment 3 on “Different things we believe” will require 4 hours. The response papers will require 8 hours each (16 hours). The 2 drafts of the research paper, writing the research paper, and preparing for the Symposium presentation will require approximately 36 hours during the course of the term, much of which may fall during the last half of the term.
Hat do generally for everybody. About your own experience to help you develop an essay which is about how faith/opinion/knowledge differ more. How strong are your beliefs in each of these areas? On what basis have you come to hold your beliefs in each area? Are your beliefs in each area susceptible to change in response to data and evidence and, if so, to what kinds of data and evidence? Are your beliefs in each area susceptible to arguments by others? What do differences among these types of beliefs mean for political discourse? The goal is to use some time spent thinking about your own experience to help you develop an essay which is about how faith/opinion/knowledge differ more generally for everybody.

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<tr>
<th>Class element</th>
<th>Percentage</th>
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<tr>
<td>Class attendance and participation</td>
<td>10%</td>
<td>30</td>
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<tr>
<td>Reading</td>
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<td>30</td>
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<tr>
<td>Assignment: Plagiarism assignment (required but ungraded)</td>
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<tr>
<td>Assignment 1: Graph of climate trends</td>
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<td>Assignment 2: What drives CO2 emissions?</td>
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<td>Assignment 3: Different things we believe</td>
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<tr>
<td>Response paper 1: due at beginning of class for those readings</td>
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<td>Response paper 2: due at beginning of class for those readings</td>
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<tr>
<td>Final research paper (draft 1: 5%; draft 2: 10%; final paper: 25%)</td>
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Class participation (10%)
Attendance and active class participation is required. This is a seminar-type class and I expect all of you to come in having done ALL the readings and taken time to think about them. That takes more work up front but everyone in the class learns more this way. Let's all learn from each other, rather than all learning from the professor.

Assignment 0 Plagiarism assignment – absolutely required but no points (0%)
Read links in Canvas assignment, my plagiarism policy (below), and come in with any questions.

Assignment 1 (submit online) Graph: “Local Climate Trends – Evidence of climate change yet?” (5%)
Go to http://www.ncdc.noaa.gov/cag/time-series/us

- Parameter: Choose whichever most interests you or try several times to get something interesting.
- Time Scale: 12-Month
- Month: -- leave as is
- Start Year: 1895 and End Year: 2015
- State/Region: Any EXCEPT Oregon, California, or Washington. Choose one others are unlikely to select.
- Climate Division/City: Statewide
- In gray box, UNclick Display Base Period
- In gray box, CLICK Display Trend AND Per Century AND Smoothed Time Series

BEFORE you click “Plot,” think about which direction you expect the trend to be.
To identify the graph “most interesting to you,” REPEAT the above steps keeping all selections the same BUT change Parameter (or State) and re-click “Plot.” Looking across your different attempts, what patterns do you see?

Once you have identified the most interesting graph, do the following for just ONE:
- Right-Click anywhere on chart, EVEN IF it has a "hand" icon; select "Save Current Graph as PNG Image"
- Name the file as YourLastName.png (e.g., Mitchell.png)
- Submit file by clicking on "Local Climate Trends Assignment" link at top of Assignment on Canvas

I will assemble them into a Powerpoint for class.

Grading criteria: turn in the assignment on time and according to the instructions.

Assignment 2 Short analysis paper: “What drives CO2 emissions?” (10%)
I will provide you with graphs depicting the relationship of countries’ CO2 emissions to their population, affluence, and technology. For this assignment, you are to answer specific questions (to be provided) based on interpreting the information in these graphs.

Assignment 3 Essay (submit online): “Different things we believe” (10%)
Write a 1,000 word essay explaining what differences, if any, you see in the use of the word “believe” in the following three sentences (choose whichever of the underlined pairs suits you).

- I believe that there is/is not a God.
- I believe that American government will work better if Republicans/Democrats win the next election.
- I believe that human-caused climate change is/is not already occurring.

This assignment involves careful thought but NOT a response to the readings. The goal is to get you thinking about how our beliefs about religion, about politics, and about science differ. Bring in good ideas on these subjects!

I prefer that your essay NOT tell me which of the underlined pairs you believe! Instead, write out your answers to yourself and then think about those answers to write an essay about the ways in which faith, opinion, and knowledge differ. How strong are your beliefs in each of these areas? On what basis have you come to hold your beliefs in each area? Are your beliefs in each area susceptible to change in response to data and evidence and, if so, to what kinds of data and evidence? Are your beliefs in each area susceptible to arguments by others? What do differences among these types of beliefs mean for political discourse? The goal is to use some time spent thinking about your own experience to help you develop an essay which is about how faith/opinion/knowledge differ more generally for everybody.
Grading criteria: quality of structure of paper, clarity of argument, and depth of thought as evident in writing.  

Two response papers (10% for first and 15% for second) – 1200 word limit
Each student will write 1 response paper covering ALL readings for one class session. Each student will be required to help lead discussion for that session. Response papers can be no more than 1200 words and should:

- **Section 1:** Identify **at least 3 points of agreement or disagreement** across at least 3 readings (using readings from previous classes if there are only 1 or 2 readings for the class session that you have been assigned). Show how all 3 articles you are summarizing comment on the overarching point. So, for example, show how 3 different articles weigh in on the issue of whether “mitigation is an inadequate solution to climate change,” even though one says we should focus on adaptation, another says we should focus on geo-engineering, and the third says that we can mitigate adequately if we just impose an adequate carbon tax.

- **Section 2:** Re-read the articles you have summarized and identify two strategies that the articles use that helped to convince you of their arguments. Try to identify strategies of argumentation that authors use either because they use them well or because they fail to use them. So, for example, you might say that “providing good graphics is convincing” and then point out how the two articles you found convincing used good graphics and the one that did not convince you had no graphics.

Grading criteria: quality of structure of paper, clarity of argument, demonstrated understanding of readings, depth of thought regarding the claims and how to use them to develop your own.

**Final research paper (40% total: 25% for Final Paper plus 5% and 10% for drafts 1 and 2 – see below)**
15-20 page research paper that follows one of the two options outlined in the “Final Paper Requirements” page (provided separately).

*Two drafts to help you build toward the final paper*

Draft 1 (due in Week 6) involves a 1st draft that includes a clear statement of the research question and identifies a bibliography of at least 10 relevant scholarly sources. Draft 2 (due in Week 8) requires, as a minimum, providing evidence of the variation or changes that your paper will explain. You must also include some initial set of variables that you will evaluate to see if they explain the changes you have identified. You are encouraged, but not required, to make this a full draft of the paper that includes all the elements that will be in the final paper.

Grading criteria: quality of structure of paper, clarity of argument, good use of theoretical literature, good research uncovering literature not provided by professor, and good analysis of empirical material.

**Symposium presentation (required but no credit)**
The second to last day of the term, each student will present the findings of their final paper to an in-class “Symposium on the Science and Politics of Climate Change.” Presentations will last no more than 5 minutes, with the goal of making the insights from your paper accessible to other students and the public.

**HOW GRADES WILL BE DETERMINED**
Assignment of final grades: Students will receive grades based on their grades for each assignment, the percentage weights given in the table above, and the following criteria:

- **A+:** if given at all, given to 1 or 2 students whose performance stands out as significantly stronger than all other students in the course
- **A:** all assignments completed in ways that demonstrate a strong and nuanced understanding of almost all course concepts and the ability to clearly connect theories from the course to empirical evidence
- **B:** all assignments completed in ways that demonstrate a solid understanding of most course concepts and the ability to adequately connect theories from the course to empirical evidence
- **C:** completed assignments demonstrate only a basic understanding of course concepts and/or one or more assignments missing
- **D:** missing many assignments and completed assignments demonstrate little understanding of material covered
- **F:** assignments completed account for less than 80% of total grade.

**Expected distribution of grades:** ~20% As, ~35% Bs, ~35% Cs, ~7% Ds, ~3% Fs.

**COURSE POLICIES**

**Policy on late assignments**
Late assignments will lose 2 points per day (at midnight): an assignment that arrives before midnight of the 1st day after it was due will lose 2 of 100 points, one that arrives midnight of the 2nd day after it was due will lose 4 of 100 points, etc. Please turn in all assignments, even if late, however.

**NOTE:** It is difficult to pass this course unless you turn in ALL assignments, since each is such a large portion of the final grade. Help me help you pass the course by turning in all assignments on time.
Academic Integrity, Plagiarism, Fabrication, Cheating, and Misconduct:
By enrolling in this course, you agree to abide by the University’s Student Conduct Code. You must read the three webpages linked on Canvas for Assignment #1. Understanding these documents is a course REQUIREMENT that you MUST complete by the end of week 1. Everything in your assignments must be your own work. Neither ignorance of these policies nor the lack of an intention to cheat or plagiarize will be considered a legitimate defense. Raise questions you have with the professor before problems arise. I will flunk all students who plagiarize and will report them to University authorities. Unfortunately, I have done so two or three times in the past few years.

Creating an environment conducive to learning
Both I as a professor and the University of Oregon are committed to creating inclusive learning environments. Please notify me if any aspects of my instruction methods or course design result in barriers to your participation. If you have a disability, I encourage you to contact Accessible Education Center in 164 Oregon Hall at 346-1155 or uoaec@uoregon.edu If you have already been in contact with Accessible Education Center and have a notification letter, please provide me with a statement from Accessible Education Center during the first week of class so that we can make appropriate arrangements. University policy requires that students present a notification letter from AEC to receive testing accommodations (see http://aec.uoregon.edu/students/current.html ).

I also have a personal commitments and university responsibility to report any instances of sexual harassment, sexual violence and/or other forms of prohibited discrimination. If you would rather share information about sexual harassment, sexual violence or discrimination to a confidential employee who does not have this reporting responsibility, you can find a list of those individuals at https://safe.uoregon.edu/services. Each resource is clearly labeled as either “required reporter,” “confidential UO employee,” or “off-campus,” to allow you to select your desired level of confidentiality.
**COURSE SCHEDULE AND ASSIGNMENTS**

**Tues., Week 1: Introduction**  
No readings. Come to class prepared to answer the following questions:
- What DON’T you know about climate change?
- What DO you know about climate change?
- What do you want to learn in this course?

**Thurs., Week 1: What is climate change?**

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<thead>
<tr>
<th>Assignment “Plagiarism” due by end of week 1: Complete online readings regarding plagiarism!</th>
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| - Kolbert, E. 2015. The weight of the world: can Christiana Figueres persuade humanity to save itself? New Yorker. A great introduction to the subject of climate change and easy to read.  
- Kolbert, E. 2015. If we burned all the fossil fuel in the world. New Yorker. Short piece on current issues.  
- AAAS Climate Science Panel. 2013. What we know: the reality, risks, and response to climate change. Washington, DC: American Association for the Advancement of Science  
- Intergovernmental Panel on Climate Change. 2014. Climate Change 2013: the physical science basis (WG1 Summary for Policymakers). Geneva: Intergovernmental Panel on Climate Change The IPCC is “the leading international body for the assessment of climate change … established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO).” |

| Assignment 1 (see syllabus): Graph: “Local Climate Trends – Evidence of climate change yet?” |
| submit ONLINE by 5 pm on day BEFORE class |
| - Watch videos from U.S. National Science Foundation. 2011. What science is telling us about climate change - videos. Washington, DC: U.S. National Science Foundation : The US NSF is “an independent federal agency created by Congress in 1950 ‘to promote the progress of science.” |

**Thurs., Week 2: The impacts of climate change**

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<tr>
<th>Assignment 2 Short analysis paper: “What drives CO2 emissions?” due at beginning of class: described above</th>
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**Tues., Week 3: The drivers of climate change: IPAT—population**

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<th>Thurs., Week 3: The drivers of climate change: IPAT—affluence and technology</th>
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**Tues., Week 4: Ethics and climate change**

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<th>Thurs., Week 4: What of the science should we (and do we) believe?</th>
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Assignment 3 (see above on syllabus)  
Essay: “Different things we believe” due at beginning of class: described on syllabus – due at start of class
• **How do we learn about the science?** Getler, M. 2012. *Climate change creates a storm: summary of PBS NewsHour controversy*. *PBS Ombudsman Blog*


• **Why should we believe the science and which scientists should we believe?** Anderegg, W. R. L. 2010. *Diagnosis Earth: the climate change debate*. *Thought & Action*: 23-36.

• **What do you believe and why?:** Leiserowitz, A. A. 2009. *Global warming’s six Americas: an audience segmentation analysis*. (20 December 2010): Center for American Progress THINK ABOUT: Which “6 Americas” group do you fit into (even if you aren’t an American)?


**Tues., Week 5: Economics and climate change**


• Reuters. 2014. *Act now on climate change or see costs soar, White House says*. *Reuters*

**Thurs., Week 5: Psychology and climate change**


**Tues., Week 6: Sociology and climate change**

*First Draft of Paper due at beginning of class*


**Thurs., Week 6: Responses to climate change: the local level**

*Guest Lecture by Babe O’Sullivan (Sustainability Liaison, Office of Sustainability, City of Eugene) on “Eugene’s Climate Recovery Ordinance”*

• Eugene’s Climate Recovery Ordinance
  
  

• **What individuals are doing:** Maniates, M. F. 2001. *Individualization: plant a tree, ride a bike, save the world?*. *Global Environmental Politics* 1(3): 31-52.

• **What some countries are doing on their own:** Anonymous. 2010. *Costa Rica forest and climate policies*. Pax Natura. URL on Canvas.

• **What Multinational Corporations are doing:** Mills, E. 2009. *From risk to opportunity: insurer responses to climate change*. Boston: Ceres. Skim to get a sense of what insurers are doing.

**Tues., Week 7: Responses to climate change: the international level**


Thurs., Week 7: Law and climate change
Guest Lecture: Mary Wood, UO Law School – Climate Change, Int’l Law, & Humans as Trustees of the Atmosphere
- Prof. Wood has proposed a very interesting legal approach to addressing climate change.

Tues., Week 8: Did the Kyoto Protocol influence carbon dioxide emissions?
Second Draft of Paper due at beginning of class
- Clark, D. 2012. Has the Kyoto protocol made any difference to carbon emissions? The Guardian. 31 August 2014

Thurs., Week 8: Mitigation and Adaptation policies
- Carbon Taxes: Plumer, B. 2013. Seven thrilling facts about carbon taxes from the CBO. Washington Post Wonkblog

Tues., Week 9: Geo-engineering
- Readfearn, G. 2014 (August 3). Geoengineering the Earth's climate sends policy debate down a curious rabbit hole. Guardian (newspaper)

Thurs., Week 9: Thanksgiving – No class

Tues., Week 10: “Present Your Research Symposium”
We will hold an in-class “Symposium on the Science and Politics of Climate Change.” You will each have 5 minutes to present the findings of your final paper. I will try to arrange for faculty members and others to be present for the presentations.

Thurs., Week 10: Wrap-up discussion
Final Paper due by noon on day scheduled by the University for the final exam
PS367: Climate Change: Science and Politics of a Global Crisis
Prof. Ronald Mitchell

FINAL PAPER REQUIREMENTS
There are two options for the final paper. For both options, grading will reflect 25% for Final Paper plus 5% for draft 1 (due in week 6) and 10% for draft 2 (due in week 8).

Option 1:
Write a paper using the following template. **Goal for the paper:** identify the positions of several (3 to 5) countries in the negotiating group you have chosen and examine whether their negotiating positions align with claims made in theoretical articles. I recommend this option for any who have not written a 15-20 page research paper before, since it will be more straightforward and will allow you to work with other students to develop your thinking.

   - Follow the links for several negotiating groups mentioned in the article to determine which interests you most.
   - Look at the Earth Negotiation Bulletin page for daily updates on the climate change negotiations and background information on all things climate change: [http://climate-1.liisd.org](http://climate-1.liisd.org)

2. Start with the following articles regarding why states take the positions they do
   - Other articles will be provided by the professor soon.
   - Use course materials and others you identify for theories of why states take negotiating positions they do.

3. Pick a negotiating group to focus on, based on your preliminary efforts to see how easily you can get information about a) their negotiating positions in the climate change talks that will be going on in Paris in December 2015, b) the impacts they are likely to experience due to climate change, c) the contributions those countries makes to climate change, and d) the national climate change policies they already have in place.

4. Identify the current position that 3 to 5 of the countries in your selected negotiating group have taken in the climate change talks. Also, identify whether that position has changed since the 2009 Copenhagen negotiations. Have those countries’ negotiating positions change in the last 6 years or been pretty much the same?

5. Identify the expected impact that your selected countries are likely to experience if climate change occurs.

6. Identify how and how much your selected countries contribute to climate change? What are their total national emissions? What are their per capita emissions? What are their per GDP emissions? What activities (fossil fuel, deforestation, rice farming) are the major sources of GHGs from each of your countries?

7. Identify the national actions your selected countries have taken on climate change?

Option 2:
Recommended for those who with past experience writing long research papers and who seek that challenge again.

Pick an international aspect of climate change and write a paper providing a theoretically-informed explanation of that. This topic must be approved by the professor. The paper requires rigorous analysis that couples theory with solid empirical evidence of policy changes and the factors that caused those policies or the impact those policies had on behavior or other aspects of the political context. I pay particular attention to your ability to identify and understand relevant theory; to collect and analyze empirical evidence; to develop good counterfactual arguments; to evaluate rival hypotheses; and to evaluate the generalizability of the arguments you create.

NOTE: Doing research involving surveys, interviews, etc.? – you need “Human Subjects Clearance”! Federal law requires you get approval BEFORE you begin – see [http://humansubjects.uoregon.edu/](http://humansubjects.uoregon.edu/). Getting such approval within the ten weeks of the term is unlikely. If you are still interested, talk to me no later than week 3 of the term.
As guidance for your final paper, I wanted to provide some ideas for a generic structure. Many of you will find other ways to structure your paper. You are welcome to use another structure. However, those of you who have not yet decided on your structure or who are unhappy or uncertain about your structure are well-advised to try to follow the structure given here. All students, regardless of whether you use the following structure or some other, should make sure to cover the same major points as in the outline below.

### General comments
Overall, you should make sure that your paper has a major argument. In doing so, make sure you also follow these rules:

- **Make a causal argument.** Take time to select a theoretical argument that interests you. You may find it easier to read some of the theoretical readings in the book and reader first to identify interesting theories already out there. Then see if you can clarify the causal argument implied by those theories, using independent and dependent variables. Think through how you would observe the values of these variables in a real world case and think about what cases would help you know whether the theory was true or not.
- **Analyze the articles and books you read.** Avoid providing summaries of the readings or stringing together long quotes from articles you read. Do not simply describe the problem or the solution.
- **Use logic not assertion to support your argument.** Avoid unsupported statements of your view. Build a logical argument for why the reader should accept that view. It may help in doing this to avoid taking on topics on which you already know the answer! The goal should be to learn during the research and writing process, not to confirm the beliefs you had before you started.
- **Mix case accuracy with theory generalizability.** The goal of your study should be to develop some theoretical generalizations applicable to a wide range of cases based on accurate analysis of one or two cases. This requires careful case selection (to control for most independent variables so they are the same for both cases) and attention to how the specific facts of your case fit into more general values of theoretical variables.

### Introduction
Make sure you clearly explain your major causal claim. If you phrase this as a “what caused...” question (e.g., “What caused oil companies to comply more with MARPOL’s equipment regulations and not with the discharge regulations?”), make sure to follow this with the answer that you arrived at after researching and writing your paper. You can either just state your causal claim or have your causal claim be the answer to the question. In either case, make sure you have the causal claim in the introduction. That means adding this to the introduction after writing the rest of the paper. In this case, it might mean saying “The greater transparency of the equipment regulations caused higher compliance levels with those regulations than with the less transparent discharge regulations.”

### Definitions and background
Fully define all concepts and terms that are important to your argument. Make sure you clarify to the reader what the independent and dependent variables of the research are. What are the variables, e.g., DV=compliance level; IV=transparency level? What values can they have, e.g., DV=High compliance or Low compliance; IV=More transparent or Less transparent? Make sure that you define what you mean by your dependent variable, especially if “success” is your dependent variable! You should make some statement like: “For the purposes of this paper, I define success (or other value/variable) to mean that behavior conformed more with treaty rules than it would have otherwise.”

On background, keep it very short. One page maximum. If possible, eliminate this section altogether and bring in the necessary facts as part of your analysis.

### Theoretical argument and hypothesized relationships of IVs and DVs
This section should lay out the general theoretical literature on the topic you are investigating. You should describe the literature of prior political science scholars who have worked on the topic and have proposed and/or tested the hypothesized between the independent variables and dependent variables you are planning on studying. In essence, this is the “who said what to whom” on factors influencing treaty compliance and effectiveness section of the paper. You should be able to “place” your research in the context of other scholars who have worked on this issue, thereby showing how your research will contribute to our understanding of how to do better at managing international
affairs. The best way to think about writing this section is to use the examples of the theoretical sections that are provided by many of the articles you are reading for the course.

**Values of the dependent variable and the empirical puzzle involved**

In this section, provide the evidence that you believe demonstrates that the dependent variable has the value you claim it does in each of your cases. For example, this means providing the evidence that tankers actually did comply with the equipment regulations. It also requires that you provide the evidence that the dependent variable would and could have had a different value. For example, you should show here not only that all tankers complied with the equipment regulations but also that they did NOT comply with the discharge regulations. If you are comparing two treaties, provide the evidence that shows that the two treaties had different values on the dependent variable, that one succeeded and one failed (remembering your definition of success from the previous section).

**Values of the independent variables and their power to explain**

Here you would want to lay out the various independent variables that you believe could possibly have caused the variation in your dependent variable. In the example, this would involve the variable of “level of treaty transparency.” However, it would also include enforcement by a hegemonic state and growing environmental concern.

For EACH variable, you would provide evidence of the value of the independent variable and how variation in the value of that independent variable could have produced the variation in the value of the dependent variable. Thus, for example, you would want to show that the equipment rules were “More transparent” and that the discharge rules were “Less transparent” (see definition section above). You would then want to provide a causal narrative showing how “More transparency” could lead to “More compliance” by making identification and prosecution of violations easier.

You want to do the same analysis for other independent variables. So you would also want to see how growing environmental concern affected your dependent variable - in this case, the level of environmental concern was the same under both rules and so can not explain the variation in compliance. In most cases, you will find that other variables also could explain your dependent variable. That is fine. The main point is to honestly assess which of the several independent variables you have chosen to look at could explain variation in your dependent variable. Do not feel like you have to exclude all variables but one. I might have found that greater transparency and hegemonic enforcement both contributed to compliance with the equipment regulations. But at least I could have concluded that growing environmental concern had nothing to do with the difference in compliance levels. Note that this last statement does not mean “growing environmental concern is unimportant in environmental treaties,” it simply says that differences in level of environmental concern cannot explain the observed differences in discharge and equipment compliance levels because there was no variance in the level of environmental concern across my cases: the level of environmental concern with the discharge rules was the same as the level of environmental concern with the equipment rules.

**Evaluate rival theories of the cause of variation in your dependent variable**

To the extent that the previous section has not already done so, spend a paragraph or two describing and honestly assessing whether some other independent variable might explain the variation in the dependent variable. For example, here you might want to evaluate whether the price of oil explains why the equipment rules had higher compliance than the discharge rules. If you can exclude this variable from consideration, good going. But if not, acknowledge that this alternative theory may have also contributed to the variation in the dependent variable.

**Conclusion**

Provide a nice summary of the argument you have made. Restate what causal claim or claims you have provided supporting evidence for and what causal claim or claims you have shown do not hold true in your case or cases. If appropriate, you should provide some sense of why what you have learned about the cause of variation in your dependent variable is important. You may want to make policy suggestions something like “This study shows that environmental treaties can cause greater compliance if they incorporate more transparent rules.” However, make sure that these recommendations clearly stem directly from your research.

**Things not to do!**

Do NOT spend more than three sentences, anywhere in the paper, telling me how awful some environmental problem is or describing how much damage humans are doing to the environment. If you write a well-written analytic paper you will get an A even without such a section; if you write a poorly written paper with no causal analysis, including a long and eloquent section on the horror of an environmental problem, you will not get an A. Do NOT spend more than three sentences describing all the reasons why humans should take better care of the environment. Also avoid recommendations that you would have made before you even started the paper. For example, do not end by saying something like “We all need to care more about the environment.” You could have said that on the first day of class!

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To: Students in my courses
From: Ronald Mitchell
Subject: Checklist for writing a good paper
Date: September 24, 2015

Obviously, the crucial parts of your paper are the intellectual content - so focus on them first. That said, to make sure that your excellent intellectual work is presented in the most professional manner, I also wanted to provide the following checklist of things you should make sure to do before you hand it in. Do them in the following order and check them off as you go and it will be difficult to go wrong.

___ Re-read the assignment: Re-read the assignment and grading criteria for the paper. Make sure you understand what the goal for the paper is and what things the professor will be looking for.

___ Writing the intro and conclusion: Make sure that both your intro and conclusion entail brief summaries of the major thread of your argument, including the theory or theories you will be evaluating and your empirical findings regarding that theory's validity for whatever cases you studied.

___ Frontmatter: Have a nice cover page with your paper title, date, and ID # but do NOT include your name or any other contact information on it. All of this should be in a template file that you use for all your college papers.

___ Headings: You can improve the logic and readability of your paper by using headings such as Introduction, Definitions and Background, Theories of Free Trade, Evidence from NAFTA, Conclusion. Headings and subheadings should appear every three pages or so.

___ Page Numbers: Always have your computer put page numbers somewhere on the page. That ensures that you don’t hand in a paper with missing pages and allows people grading the paper to be able to reference pages when making comments.

___ In-text citations (not footnotes): See attached sheet on “Use and Formatting of In-Text Citations and Reference”

___ References: See attached sheet on “Use and Formatting of In-Text Citations and References”

___ Spellcheck: Always, always, run spell-check as the last step before printing out the final version of a paper. In the age of computers, there is no excuse for misspelling - if you used a word processor to write it, then you can run spell-check in less than three minutes.

___ Proofread: In addition, proof your paper to avoid missing words and other errors that spell-check will not catch. Spell-check can Miss man an err or that a careful proof-reading will knot miss. (Translation: Spell-check can miss many an error that a careful proof-reading will not miss.)
Use and Formatting of In-Text Citations and References

Ronald B. Mitchell
September 24, 2015

Use footnotes sparingly and only to add text that you feel is important to the argument but would break up the flow of the argument if included as text. For all citations, use the in-text citation method described here. You are required to use the following guidelines for formatting your references. Do not use any other style of references. If you type your references into a document now, you won’t have to retype them for your paper later.

FORMAT FOR IN-TEXT CITATIONS

IN-TEXT CITATIONS are the components of author, year, and page that you insert in the text of the document. General rules for IN-TEXT CITATIONS are:

- All in-text citations use the following form (Author Year, pages) or (Author, Author, and Author Year, pages).
- Two citations are separated by a semicolon.
- You MUST include a page number if using an exact quotation and you should use a page number if the idea being cited does not constitute the overall theme of the book or article, but is a specific subpoint.

Examples:

- **Direct quote**: “Call me Ishmael” (Melville 1978, 1).
- **Paraphrase**: All unhappy families are different (Tolstoy 1954, 1).
- **Argument summary**: Many authors rank Melville as the best American author (Smith, 1962; Jones, 1978).
- Note punctuation sequence is in all three examples: no period - close quote - space - open parenthesis - author last name - space - year - comma - space - page number - close parenthesis - period

FORMAT FOR REFERENCES

REFERENCES are the full description of an article, chapter, book, website, etc. placed in the “Sources Cited” or “Bibliography” section at the end of your paper. They clarify the IN-TEXT CITATIONS that are placed in the body of the paper. General rules for references are:

- All reference types use the following order: Author (last name first) – Year – Title – Source.
- In multi-authored references, second and subsequent author is first name first.
- Journal articles: include volume number, issue number, date, and pages – yes, you need them all.
- Parts of titles in quotes are capitalized like sentences, parts of titles italicized are formatted with all significant words capitalized.
- In websites, make sure to include date of document if available, but always date accessed.
- Punctuation rules: Periods inside (not outside) quote marks of title. Period after author(s), year, title, source.

Journal Article:

Book:

Edited book:
Chapter in edited book:

Dissertation:

Web site:

International Treaty, Convention, Agreement:
Making Citations and Bibliographies Easy

When completing your paper, you are likely to spend considerable time trying to complete your footnotes and bibliography of references. This memo is simply to suggest a way to avoid some, if not all of that pain. The major message is simply to be organized in keeping track of your references as you go along. DO NOT tell yourself “Oh, I will worry about getting the citations later, I have to get this written now.” It WILL take you ten times as long to find the source and page number later as doing it then and there.

Major Steps to an Easy Completion of Footnotes/Endnotes and References:

- Create a new file in your computer today called ‘references.doc’
- Whenever you start to read a book, article, or government document, open references.doc and type in the full citation including all the information noted earlier in this memo.
- Take the time now to format the citation properly as well. You have to do it sometime, why not now. After awhile, you will get used to the formatting style and do it automatically.
- Whenever you take notes, make sure that you keep track of the exact page number from which you are taking notes, even if you are not taking exact quotes.
- Generally, it is better to carefully right down the full and exact quotes rather than to paraphrase. If you keep the full quote, you can paraphrase later without re-looking at the source; if you paraphrase now, you will need to re-find the source to get the exact quote.
- Once you start writing, make sure you include appropriate citations as you go along, including page numbers. It really will be a hassle later (trust me) if you don’t do this now.
- Check with your advisor to see what the expectation is, but many of you may find that in-text citations with a bibliography at the end is acceptable. If so, that is by far the easiest way of doing your citations.
- If you keep a properly formatted bibliography of all your potential sources going from the beginning, then your bibliography is done when your note-taking is done. If you keep good citations as you write, then your footnoting/endnoting is done when you finish your writing. Much easier than saving them to the end.

Making it even easier:
Everyone should follow the steps above. In addition, however, you may want to look into some commercial footnoting programs. I use Endnote, but ProCite and RefManager are also good programs. These programs allow you to type a citation into a database once and then use it as an integrated part of your word processor when doing citations. I find it to be well worth the $100 you spend on the software.

Major advantages of using the software are:

- Don’t have to type in many of your citations, since you can connect directly to Socrates and download any source in Socrates directly to your database.
- Makes finding a reference easy, since all of them are in your database.
- Makes putting in a citation easy because you toggle to your database, type the first few letters of the authors name, and then type one keystroke to insert the name and year of the source directly into your Word or WordPerfect document.
- When you are done, a couple of keystrokes generates a properly formatted bibliography quickly and easily. It goes through your whole document and generates a reference list of only those sources you have cited. It make sure book titles are underlined, journal articles are italicized, etc., without you having to do it.