

GE Assessment Plan
Political Science 3780
Professor Braumoeller

Overview. In order to assess aggregate student achievement of GE expected learning outcomes over time, the faculty will examine both raw (un-curved) assignment scores on the weekly and Final Projects and the number of questions asked on each assignment in the Carmen forums. The former is a direct indicator of performance; the latter is an indirect indicator that measures students' difficulty in completing the assignments unaided.

Description of the specific methods the faculty will use to demonstrate that the aggregate of his/her students are achieving the goals and expected learning outcomes of this GE category.

Students will be given a rubric for each weekly assignment and the Final Project, and individual students' performance will be evaluated vis-à-vis the criteria laid out in the rubric. An example (Assignment 3) is attached, along with a rubric (Figure 1).

A separate discussion forum will be set up for each assignment so that students who are encountering difficulty can post questions. The number of questions is an indirect indicator of students' ability to achieve the learning outcomes: although no questions at all may indicate that the assignment is insufficiently challenging, a large number is indicative that students are struggling to complete it. An example (Figure 2) is attached. In that Figure we can see that, while most Assignments occasioned little discussion, Assignment 4 was characterized by mass confusion.

Finally, one very useful indirect indicator of overall learning is item 7 on the standardized evaluation of instruction (SEI), which asks whether the students agree that they "learned greatly from the instructor."

Explanation of the level of student achievement expected

The assignments build on one another: a skill that is introduced in one assignment will be honed and perfected over the following assignments. For this reason, there is no direct correspondence between a grade on any one assignment and the degree to which a particular skill has been learned. The best overall indicator of a student's level of skill mastery is the Final Project (attached), which counts for 40% of the final grade and requires students to utilize all of the skills that they have learned in the class. Success will be defined as 75% or more of the students receiving grades in the "Excellent" category (80-100) on the un-curved Final Project grade.



For the discussion forum indicator, experience suggests that, even on a successful assignment, it is reasonable to expect a number of posts less than or equal to roughly 20% of the class size, indicating that up to 10% of the students have asked questions—generally points of clarification or idiosyncratic issues—and received answers. Success will be defined as a number of posts equal to or less than 20% of the class size.

For item 7 on the SEI, an average score of 4.0 or better will be taken as an indication that the students themselves perceived a successful learning outcome.

Description of follow-up/feedback process

Once the faculty has gathered data on student achievement, s/he will use this information to determine, in consultation with senior colleagues and other specialists at the University if necessary, which lectures need to be improved, which assignments need to be changed (or replaced), and which texts need to be added or removed.

The information—scores, rubrics, discussion forum totals, and SEIs—will be archived on Carmen and in the Faculty Center.



Maps and Data	Excellent 4 points	Good 2 points	Poor 0 points
World maps	Two separate GunnMap world maps, one reflecting the percentage of the population in poverty in each country, the other reflecting percentage obese. Color schemes and balance chosen so that full range of variation is clear. Either JPG or PNG format.	One GunnMap world map, correct, as described above; or two maps with incorrect data or imbalanced/unuseful color scheme.	No maps submitted.
Network data and graph	Correct network data in csv format; map of network that usefully displays network structure.	Incorrect or incomplete network data, or map of network that has had no layout applied (a circular blob, in Gephi, or a rectangle, in Cytoscape) and doesn't reflect network structure.	Missing data and network map.
Essay	Excellent 2 points	Good 1 point	Poor 0 points
Response essay	One paragraph correctly describing the structure of the <i>Francs-tireurs partisans</i> network and offering a plausible explanation of why it might look the way it does. Word, text, or PDF format.	An incorrect description of the structure of the network, or no attempt to explain why it might look the way it does.	No response essay submitted.
Overall Score	Excellent 8 or more	Good 5 or more	Poor 0 or more

Figure 1. Rubric for Assignment 3



Assignments			★ Subscribed
A forum for questions about assignments. Please feel free to post questions and offer hints to others, but don't share answers to problems.			
Hide Topics			
Assignment 1			★ Subscribed
Assignment 1: Data Scavenger Hunt!			
0	17	241	
Unread	Posts	Views	
			Last post over a month ago by Patrick Brennan
Assignment 2			★ Subscribed
0	3	58	
Unread	Posts	Views	
			Last post over a month ago by Bear Braumoeller
Assignment 3			★ Subscribed
0	8	112	
Unread	Posts	Views	
			Last post over a month ago by Audra Agostini
Assignment 4			★ Subscribed
0	81	449	
Unread	Posts	Views	
			Last post over a month ago by Samuel Fogle
Assignment 5			★ Subscribed
0	8	135	
Unread	Posts	Views	
			Last post over a month ago by Bear Braumoeller
Final Assignment—Part 1			★ Subscribed
0	0	13	
Unread	Posts	Views	

Figure 2. Discussion forum post totals.

Setup	Excellent 5 points	Good 3 points	Poor 0 points
Question	A succinct (ideally, one sentence) and logically coherent research question.	A vague or unfocused research question that could be answered once specified more clearly.	A research question that is entirely lacking in coherence, or no research question.
How these data help	A description of the data used to answer the question, and an explanation of why these data and this data analysis will help us to answer the question.	An incomplete description of the data used to answer the question, and/or a superficial explanation of why these data and procedures will help us to answer the question.	Little or nothing by way of description of the data or explanation of their utility.
Process	Excellent 10 points	Good 7 points	Poor 0 points
Process of answering question	Detailed description of the process by which you obtained and analyzed data, including all details that a reader would need to reproduce the process perfectly.	Brief description of the process by which you obtained and analyzed data, with enough detail that an informed reader could probably reproduce your results with a bit of guesswork.	No description, or a description so vague as to be useless.
Answer	Excellent 20 points	Good 15 points	Poor 0 points
Your answer	A compelling data analysis that gives a clear, convincing, thorough answer to the question utilizing visualizations that score high on the dimensions of truth and beauty; also, a candid discussion of any remaining doubts and how they might be resolved by future research.	An adequate data analysis that gives a plausible answer to the question using visualizations, and a cursory discussion of any remaining doubts.	An analysis that really doesn't answer the question at all, or no analysis.
Overall Score	Excellent 35 or more	Good 25 or more	Poor 0 or more

Figure 3. Rubric for Final Project



Maps and Data	Excellent 4 points	Good 2 points	Poor 0 points
World maps	Two separate GunnMap world maps, one reflecting the percentage of the population in poverty in each country, the other reflecting percentage obese. Color schemes and balance chosen so that full range of variation is clear. Either JPG or PNG format.	One GunnMap world map, correct, as described above; or two maps with incorrect data or imbalanced/unuseful color scheme.	No maps submitted.
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Essay	Excellent 2 points	Good 1 point	Poor 0 points
Response essay	One paragraph correctly describing the structure of the <i>Francs-tireurs partisans</i> network and offering a plausible explanation of why it might look the way it does. Word, text, or PDF format.	An incorrect description of the structure of the network, or no attempt to explain why it might look the way it does.	No response essay submitted.
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Figure 3. Rubric for Final Project

Assignment 3

Overview. This assignment consists of two parts. The first involves setting up a web scraper. It may take a couple of attempts and will probably take a while to run, so you might consider setting it up first and then working on the second part of the assignment while it's running.

Part I: Stuffed and Starved

Noted author Raj Patel is coming to Ohio State to give a talk. His book, *Stuffed and Starved: The Hidden Battle for the World Food System*, explores the reasons behind the simultaneous epidemics of starvation and obesity worldwide. Word of your data-visualization skills has spread among your friends, and you've been contacted by the editor of the *Lantern* and asked to produce two world maps for the newspaper—one exploring the distribution of poverty in the world and the other exploring the distribution of obesity.

Go to the [CIA World Factbook](#) website and click on “View Text/Low Bandwidth Version” for the uglier (but much more scraper-friendly) version of the site. Use Outwit Hub to collect data on (a) the adult prevalence rate of obesity and (b) the percentage of the population below the poverty line for as many countries as you can.¹

Using GunnMap, create two graphs representing “The Stuffed World” (obesity rate) and “The Starved World” (percentage below the poverty line). Use whatever color schemes you'd like, but be sure that the balance is set so that readers can see the full spectrum of variation. Save the maps as `stuffed.jpg` and `starved.jpg`.

Part II: The Structure of Insurgency Networks

The *Franco-tireurs* were irregular riflemen who engaged in guerrilla warfare and what we would now call covert operations. Their history dates back at least to the Franco-Prussian War, though they became most prominent during the French Resistance in World War II.

¹There will be a fair bit of missing data, both because some governments don't report these figures and because the CIA World Factbook collects data on territories as well as autonomous countries. Don't worry too much about it; GunnMap handles missing data pretty well.

Your assignment is to analyze the network structure of the *Francs-tireurs partisans* (FTP), the military arm of the French Communist Party, which engaged the Nazis as part of the French Resistance following the German invasion of the Soviet Union.

The data for connections among 175 members of the FTP have been collected by Alexander Gutfraind at Cornell University. To download and analyze them, visit Mr. Gutfraind's website at <http://www.cam.cornell.edu/~gfriend/research.php> and find the link that says "Network data on the underground network Francs-tireurs et Partisans." Either download the data or copy-and-paste them into a text file.

In order to prepare the data to be read into a network-graphing program (Gephi or Cytoscape), you will need to do the following in a text editor:

- Remove all the comments at the top (the lines that start with "#").
- Do a global search and replace within the text file to replace all spaces with commas.
- Save the file, with a .csv suffix (for example, "FTP.csv").

You will then need to open the CSV file in a spreadsheet program like Excel and do the following:

- Delete the third column—the one that only contains 1s.
- Insert a blank row of cells at the top of the spreadsheet (in Excel, you do this by clicking on row 1, going to the Insert menu, and selecting Rows).
- At the top of the first column, enter the word "Source". At the top of the second column, enter the word "Target".
- Save as a CSV file (for example, "FTP2.csv").

You now have an *edge list*, or a list of all of the connections between nodes in the network. Load this file into either Gephi or Cytoscape and explore a few different layout options for the data. When you find one that gives you a good sense of what the network looks like (hint: it's not just a blob), save a copy of the network graph.

In a separate Word or text file, answer the following question: Why do you think the *Francs-tireurs partisans* network looks the way it does? (1 paragraph)

Upload to Assignment 3 Dropbox a compressed folder containing (a) your two maps from Part I, (b) your CSV file and network graph from Part II, and (c) your answer to the question in Part II.

Final Project, Part 1

Your final project for this class involves asking and answering an interesting question, using data visualization. In this, the first part of that assignment, you will ask the question.

Choose a topic that you've studied (in a political science class or elsewhere), or a topic that you'd like to know more about, and **propose a question** that

1. is interesting
2. has not already been answered (or, has been answered, but could be answered differently)
3. can be answered with data

Explain, in one paragraph each, why it interests you, how you could answer it, and where you could find data that would answer it (include specific sources and datasets).

A question should be neither too broad (“What causes the rise of empires?”) nor too narrow (“How popular was the President last year?”) Shoot for a question that can be explored using available data in under 10 pages. The best way to do this is to focus on a manageable part of a broad question that interests you: rather than trying to ascertain whether gun control increases or decreases crime in general, for example, you might explore specific gun-related laws that have been enacted in some states but not others—perhaps find two states that are as similar as possible, except that one passed the law and one didn't, and see what their crime rates look like before and after the law's passage.

Final Project, Part 2

Your final project for this class involves asking and answering an interesting question, using data visualization. In this, the second part of that assignment, you will ask and answer the question. You do not need to ask the same question, exactly, but if your question is substantially different, make sure that you've run it past me or Ms. Bradshaw for feedback.

1. State the question and explain why you find it interesting.
2. Explain why the data you examine will help you to answer the question.
3. Explain, step by step, how you've gone about answering it. Describe the data and where you obtained them, what (if anything) you did to reformat or transform them, how you analyzed them, and what they told you. Include visualizations. (This should be most of the project.)
4. What do you now know that you didn't know before? Does the answer raise further questions that might be worth investigating? If so, describe them briefly.

We anticipate papers in the 5–7pp. range, 1¹/₂-space, though succinct writers may take less space and those with more complex problems or answers may take more. You may use any programs or websites you'd like to format and analyze the data; R should be very useful for this assignment, but it is not required.

Due to the University's strict timeline for final grades, no extensions can be offered except in case of genuine emergency. We look forward to receiving your best effort by 5:00 p.m. on December 4.