Social Networks and Political Interdependence
David A. Siegel

Course information:
Course Number: POLSCI.634.01.Sp16
Time: M 10:05 AM–12:35 PM
Place: Biological Sciences 063
Course website: Sakai

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Course Description
This course is a collective enterprise in building a repertoire of knowledge and skills relating to understanding the influence of social networks on political behavior and using this repertoire to answer novel network-related questions of interest to each student. To elaborate, the course is designed to do three things: (1) impart an understanding of the myriad ways in which social networks influence political behavior; (2) impart a set of skills, largely computational in nature, designed to probe the role of social networks in political behavior; and (3) help develop and address an original research question involving social networks and political behavior.

We will spend the first few weeks of the course discussing the state of the substantive literature on the role of social networks in political behavior, with a focus on relatively recent scholarship. We will then turn to developing an empirical and theoretical toolkit intended to help us answer our own questions on the topic, with an emphasis on the theoretical. This toolkit will comprise quantitative analysis of relational data, game theory applied to networked relationships, and programming skills sufficient to simulate behavior in a network, including computational modeling best practices. In each case we will learn how the methods work and the assumptions underlying them, and tie their uses to extant literature on networks. The course schedule below lists topics, readings, and a rough amount of time we’ll spend on each, but we will be somewhat flexible in order to take more time on any topic that is of particular interest.

Having built up both substantive and methodological knowledge, we will then work jointly toward developing students’ original research papers. In the first such session we will discuss student-chosen research ideas and endeavor, as a group, to improve them. In the next we will discuss research methodologies and collectively refine the approaches that each student will take in his or her final research project. In the remaining sessions we will consider preliminary results and discuss productive directions to take research in response to these. These sessions will culminate in a final research paper, to be produced by the end of the class. Half of the class grade will come from this paper, with the rest distributed between active participation and several short assignments over the course of the semester.

There are no strict prerequisites for the course, as all necessary skills will developed during it. However, students who possess an introductory or better level of understanding of statistics, game theory, and/or programming might find the corresponding topics easier.

Readings
All readings for the class are listed in the tentative schedule below in the order in which they will be used. Any book chapters or articles not available through Duke’s library or on the Internet will be posted to Sakai. Required readings are to be done before class in all cases. Students, particularly those lacking specific methodological training, should focus on the substantive contributions of the readings; we will discuss all methods in class. Additional recommended readings are listed
below each topic on the schedule as well. These are included as a preliminary (and completely non-exhaustive) guide for further reading on the topic for those who are interested. Because of the breadth of the topic and the manner in which it spans academic disciplines, I have primarily included readings from political science sources. This is not a statement of relative worth, just a nod to the focus of the course. There are longstanding traditions of network study within sociology, anthropology, and mathematics that deserve attention, as well as equally valuable, if newer, literatures in diverse fields such as economics, computer science, and physics.

Course Requirements

• Participation (25%): For the weeks we will discuss the substantive literature, everyone should be prepared to discuss the readings during class. I expect you to provide evidence that you have done the readings in a thoughtful and careful manner. For the weeks we will discuss methods, all students are expected to come to class with questions from the readings and/or the assignments. Most of all, for the weeks we will work collectively on improving individual research projects, all students are expected to actively contribute.

• Short Assignments (25%): There will be several short assignments covering methodological topics over the course of the semester. Students will generally have one week to complete them. We will be using a peer review system. It will work as follows: each student will be assigned a random number at the beginning of the semester. All assignments will be turned in electronically via Sakai dropbox in either pdf or doc(x) format only and contain only this number (i.e., not any names) as identifiers. I will deliver to each student one of these assignments, chosen at random, along with an answer key to each assignment. Each student will have to provide feedback (in the form of electronic comments) on the completed assignment they were given, and return the assignment with feedback to Sakai dropbox within another week. Note that no grades need be assigned, just feedback and guidance. I will then assess both the assignments and the feedback. Doing a good job on both nets full credit for that assignment, while doing less well on either or both earns reduced credit. The intent of this system is to gain experience providing the kind of feedback that is essential in improving group projects and, if you choose to go on in academia, essential in reviewing, teaching, and advising.

• Final Paper (50%): The final paper will set up a novel formal and/or quantitative analysis of a problem of substantive importance using the tools discussed in class. The entire course builds to this paper, and you will have ample opportunity for feedback at multiple stages, both from me and from your classmates. As such, I expect a piece of original research that, if not immediately publishable, is well on its way to becoming so. This means that certain components will be needed. You will need to specify the research question clearly, as well as the approach you will be taking to answer it. You will need to set your question and approach in the broader literature. As the course’s methodological component is more focused on theoretical tools than empirical ones, you will need some form of formal theory, whether it be analyzed via game theory or computational modeling. You will need a discussion of the empirical implications of your theory at least, and may choose to test these implications as well. Finally, you will need a concluding discussion that includes connections to broader themes. The technical details match those that would be present at most journals: at least 20 pages (double-spaced) but no more than 40 pages (double-spaced), 12 point font. (Limiting to 8500 words is also a good idea.) Acceptable formats include pdf and doc/docx (i.e. Acrobat
and Word); it is your responsibility to ensure that the document can be opened. The final paper will be due by noon one week after the last day of class. No late papers will be accepted. Papers should be both e-mailed to me and placed in the dropbox on Sakai. Joint projects are allowed with prior permission; however, the standards to which I will hold them will be higher.

**Tentative Schedule of Readings (Subject to Change with Advance Notice):**

**The Influence of Social Networks on Political Behavior**

**Opinion Formation** (1 week)

**Required reading:**

**Recommended readings:**


**Political Participation** (1 week)

**REQUIRED READING:**


**RECOMMENDED READINGS:**


A Selection of Other Topics (1 week)

**REQUIRED READING:**


**RECOMMENDED READINGS:**


**Network Methodology**

**Empirically Assessing Networks** (2 weeks: basics, measurement; concerns, approaches)

**REQUIRED READING:**

**Week 1:**


*Week 2:*


**Recommended readings:**


**Game Theory and Networks (1 week)**

**REQUIRED READING:**


Larson, Jennifer M. 2014. “Cheating Because They Can: Social Networks and Norm Violators.” *Working Paper*

**RECOMMENDED READINGS:**


**Computationally Modeling Networks** (3 weeks: example; coding; modeling)

**REQUIRED READING:**

**Week 1:**

**Week 2:**
Class notes on Sakai.

**Week 3:**

**RECOMMENDED READINGS:**

**WORKSHOPPING RESEARCH**

**Ideas** (1 week)
**Methods** (1-2 weeks)
**Preliminary Results** (3-4 weeks)