Overview:
This course explores the theoretical and methodological foundations of social network analysis. Social network analysis (SNA) is motivated by the understanding that social actors do not live in a relational vacuum, but are interdependent upon one another. In SNA we turn to the relations that bind people together moving from simple dyadic relationships (i.e. mother-daughter) to infinitely more complex structures involving thousands of actors, organizations, and so forth. SNA is a technique derived from theory; therefore, we will focus on the theoretical underpinnings of SNA and the questions that these theories address: how does material, such as disease or ideas, flow through our networks, how is social power generated and maintained, how do our social relations influence what we do and even how we think, and many more. Moving beyond theory, we will spend a significant amount of time thinking about the methods that help us answer these types of questions from simple visualizations (i.e. family trees) to recent dynamic modeling of evolving networks (i.e. network movies).

By the end of the course, you should (1) know the major theoretical ideas supporting network research, (2) be able to collect social network data and, (3) be able to analyze and interpret social network data.

Requirements:
The main requirement of this seminar is a research paper that uses the methods or ideas of social network analysis. This may be a revision of previous work (an MA paper, another course paper, etc.) or a new paper. If this is a revision of a previous paper, you need to show that the addition of network ideas or methods significantly contributes to the revision. You may collaborate with up to 2 other students (3-authors total) on your final paper. This paper is due on March 16th. The second requirement for the class is a set of homework assignments designed to build familiarity with the software and analysis techniques. Assignments are self-graded with the solutions posted on the course Blackboard page, they are due the next class day (so an assignment listed on class 2 is due on class 3). Finally, since this is a seminar, in-class participation is necessary. The grade for the course is evenly distributed between the assignments, participation, and the final paper.

Texts:

Charles Kadushin’s Unpublished Book (Linked through Blackboard).


A variety of substantive, theoretical and methodological articles.
**Recommended Texts:**
Wasserman, Stanley and Katherine Faust. 1994. *Social Network Analysis: Methods and Applications.* New York: Cambridge UP... this is the “bible” of social network analysis and a source that all SNA specialists cite and return to frequently.

Nooy, Wouter de, Mrvar, Andrej, and Vladimir Batagelj. 2005. *Exploratory Social Network Analysis with Pajek.* New York: Cambridge UP... this book more or less functions as a user’s manual to Pajek. While we will spend a good deal of time working with Pajek in class, it is not an extraordinarily intuitive program and this book might come in handy.

**General Background:**


**Programs:**
UCINET and Pajek are two of the premier network analysis and visualization programs. Both are required for this course.

UCINET can be downloaded here: [http://www.analytictech.com/downloaduc6.htm](http://www.analytictech.com/downloaduc6.htm). There is a 60-day free trial period and, beyond this trial period, it is relatively reasonably priced at $40 for students.

Pajek can be downloaded here: [http://vlado.fmf.uni-lj.si/pub/networks/pajek/](http://vlado.fmf.uni-lj.si/pub/networks/pajek/). Pajek is free!

**Recommended Programs:**
A great deal of work can be and is accomplished in statistical programs such as SAS, R, or Stata. I am most familiar with SAS and specifically the SPAN suite of programs developed by Jim Moody, but I am willing to explore projects that use R or Stata.

**Course Schedule (Subject to change with appropriate notice in class or through email):**

**Week 1: Introduction to Social Network Analysis**
Christakis and Fowler: Read Chapters 1, 8-9 and chapters that correspond to your interests (skim rest):
(Super Quick Summary of Chapters 2-7)
Chapter 2: Networks and Emotions
Chapter 3: Networks and Marriage/Family
Chapter 4: Networks and Health
Chapter 5: Networks and Economics
Chapter 6: Networks and Politics
Chapter 7: Networks and Evolution (Genetics, Altruism, Cooperation, etc.)

**Week 2: Foundations of Social Network Analysis**
Kadushin: Chapters 2-3, skim Intro-Chapter 1.
Hanneman and Riddle: skim Chapters 1-3.


**Week 3: Collecting and Analyzing Network Data**

Kadushin, C. Chapter 10

Breiger, Ronald L. 2005. “Introduction to special issue: ethical dilemmas in social network research.” *Social Networks* 27:89-93


Quick Examples and/or Descriptions of Diverse Approaches (Skim):


**Week 4: Local Networks, Distance, and Social Capital**

Hanneman and Riddle: Chapters 7-9.


**Week 5: Centrality, Power, and Network Structures**

Hanneman and Riddle: Chapter 10-11.


Week 6: Associations and Duality

Kadushin: Skim Chapter 5.

Hanneman and Riddle: Chapter 17.


Week 7: Connectivity and Small Worlds

Kadushin: Chapter 7


Week 8: Roles and Positions
Hanneman and Riddle: Chapters 12-13.


**Week 9: Diffusion and Contagion**

Kadushin: Skim Chapter 8.


**Week 10: The Boundaries of Network Analysis (Theories, Extensions, and Miscellanea)**
