

**SOCIOLOGY 6108H**  
**SOCIAL NETWORKS II**

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**COURSE DESCRIPTION**

Social network analysts (or structural analysts) take primary interest in relationships between actors rather than in properties or characteristics of the actors themselves. Network analysis focuses on understanding patterns of relationships between social actors (e.g. people, organizations) or socially-relevant units (e.g. computers, books or articles, ideas). The social networks perspective and the methods used to study it can be applied to a wide variety of sociological questions, thus they should be seen as perspectives or tools for studying the social world, not as topics in themselves.

My expectation is that by the end of the semester you should understand this perspective, and be able to think about how to apply it to your own areas of substantive interest. The course begins with an overview of the field of social networks, including some theoretical treatises and readings on the history of this approach. Next, because they were so different from the attribute data with which many of you are familiar, we focus briefly on the nature of social network data and on issues associated with collection of this data. The next six weeks we look at substantive applications. Finally, we return to the theory behind the applications.

**EVALUATION**

Reading Responses: 20%  
Discussion Leading: 20%  
Paper Presentation: 20%  
Final Paper: 40%

**DISCUSSION LEADING**

Students will take turns leading class discussions. Please sign up for your chosen weeks on the first day of class. Discussions will focus on the substance of papers and the issues they raise. However, because some methods or measures used may be unfamiliar to many students, discussion leaders should do some background work on understanding any new methods presented in the readings.

**READING RESPONSES**

Students are required to submit each week short (1-2 pages) reading responses. These responses should not summarize the readings, but rather engage the ideas they present. For example, you might discuss the ways different readings relate to one another, how they relate to your own area of research, or discuss questions or problems you believe are left open in this literature. Your response papers should develop a small number of arguments well, rather than consist of a disconnected list of thoughts on the readings. Because response papers are intended to prepare students to participate in class discussions, response papers will be accepted *only* in class; absent students may not submit

response papers, and late response papers will not be accepted.

### **FINAL PAPERS**

Forty percent of each student's mark will be based on their final paper. Papers may be critical literature reviews, research proposals, research papers. The paper need not deal with any of the specific substantive topics covered in the course or even to use any of the methods or measures discussed, but it must incorporate a social network perspective. Please discuss paper topics with me before beginning any serious work.

It is my hope that students will produce final papers that will serve them beyond the completion of this course. Specifically, I strongly encourage students to use this assignment as a springboard from which to begin (or continue) a project which can be revised for conference presentation and eventual publication. If you can produce a research paper, do it! If you cannot produce a research paper at this point, produce a proposal for a research project you could feasibly complete and publish. If you cannot produce a proposal just yet, write a literature review that identifies open questions that you could eventually address with your research.

### **PAPER PRESENTATIONS**

To aid and encourage students to revise and continue working with their final papers after the course has concluded, the last class session will be devoted to paper presentations. Each student will do a short presentation of their work and receive feedback from me and other students. This feedback will include both suggestions for submitting the best possible course paper, and suggests for revising or extending the paper to make it suitable for conference presentation and eventual publication. Depending on the number of students enrolled in the course, class on this week may go longer than our usual 2 hours.

### **USEFUL RESOURCES**

#### **I. Web Sites**

*International Network for Social Network Analysis*

*[www.insna.org](http://www.insna.org)*

INSNA is the professional organization for social network analysts. The web site includes information about joining INSNA as well as links to journals, reading lists, data sets, software packages, and most importantly the Sunbelt International Social Networks Conference (where you can present if you take my advice and produce a paper destined to be more than just a term paper!). Also be sure to check out the SOCNET listserv where you can get sign up to get email from Social Networks' best and brightest!

*The Oracle of Bacon*

*<http://oracleofbacon.org/>*

You may have heard of the game "Six Degrees of Kevin Bacon" in which the goal is to link an actor to Kevin Bacon based on co-starring networks in movies. Now, through the miracle of social network analysis and associated computer algorithms, you can cheat. Try it out. See if you can find an actor who's at least four degrees from Kevin Bacon. Find the pope's Bacon Number, or head over to wikipedia for a discussion of Paul Erdos' Bacon number.

*Orgnet*

<http://www.orgnet.com/index.html>

Cool pictures of interesting networks and short descriptions and analyses of each. Always something new and interesting.

## **II. Journals**

*Social Networks*

This is the main journal of the International Network for Social Network Analysis. A great first place to turn for all things social network related, but particularly technical or methodological articles.

*Connections*

This is a smaller journal also published by the International Network for Social Network Analysis. Though peer-reviewed, its function is closer to that of a newsletter. Look here for news, reviews, and short timely articles.

*Journal of Social Structure* (<http://www.cmu.edu/joss/>)

A peer-reviewed online journal, also associated with INSNA. *Joss* publishes empirical and theory pieces as well as book reviews. Look here for all the cool pictures and animations you won't find in a paper journal!

*Field Methods*

Field methods does not focus on social network specifically, but the editor is a social network analyst and they frequently publish papers dealing with social networks, particularly social network data. Look here if you're interested in data collection strategies.

## **III. Books**

There are more books dealing with social networks than I could possibly list here, and listing even the highlights would greatly increase the tree-killing power of this syllabus. The books I list here are those most useful for weekly discussion leaders to use in learning more about the methods used in the assigned papers. Each book takes different approaches. Feel free to ask for suggestions on which book is likely to be most useful for given methods.

*Wasserman, Stanley and Katherine Faust. 1994. Social Network Analysis: Methods and Applications. Cambridge: Cambridge University Press.*

This is the bible of methods social network analysis. If the method existed in 1994, you can bet it's in here. However, the book is extremely detailed and technical. You may want to start somewhere else for the big picture and turn to this when you want and need the details.

*Carrington, Peter J., John Scott, and Stanley Wasserman (eds.). 2005. Models and Methods in Social Network Analysis. Cambridge: Cambridge University Press.*

This book sells itself as a companion to Wasserman and Faust, covering new developments in Social Network Analysis since 1994. Unlike Wasserman and Faust which is a monograph, this is an edited volume with one chapter devoted to each methodological topic and each chapter written by an expert in the relevant method. For the most up-to-date information and the latest and greatest in social network methods, this was your book...until...

*Scott, John and Peter Carrington (eds). 2011. The Sage Handbook of Social Network Analysis. London: Sage.* This is an edited volume that includes chapters on both substantive and methodological chapters. Most chapters are written clearly and should be understandable even to those without deep knowledge of the area.

*Scott, John. 2001. Social Network Analysis: A Handbook. Thousand Oaks, Ca: Sage.* This is a not-terribly-technical introduction to social network methods, written for social scientists interested in the approach but not looking to get heavily involved in graph theory or matrix algebras. This is a good place to start.

*Degenne, Alain and Michel Forsé. 1994. Introducing Social Networks. Thousand Oaks, CA: Sage.* This is another not-so-technical introduction to social networks. Unlike Scott's book, this book presents substantive applications of methods as they are explained and organizes chapters based on these substantive topics. The authors are less reluctant than Scott to present formulas, making this book somewhat more detailed in its descriptions of methods.

*De Nooy, Wouter, Andrej Mrvar and Vladimir Batagelj. 2005. Exploratory Social Network Analysis with Pajek. Cambridge: Cambridge University Press.* This book is intended primarily as a guide for the software *Pajek*, however, it includes clear descriptions of many of the social network measures that it teaches the reader to compute.

*Valente, Thomas. Social Networks and Health: Models, Methods and Applications. Oxford: Oxford University Press* This book is an introduction to social network analysis focussing primarily on applications related to the study of health. This provides a short overview of both social network measures and findings relating social networks to health.

#### **IV. Software**

##### *UCInet*

Created at and named for the University of California at Irvine, this package does it all (well, not all...nothing does it all..but this does lots of stuff), though the interface isn't always the most intuitive.

##### *Pajek*

This is also a do-it-all kind of program and particularly useful for the analysis of large networks. It's free and there's a great book (listed above) to teach you how to use it.

##### *Egotistics*

Written by U of T's own Bernie Hogan, this program specializes in the analysis of egocentric data. No more, must you trick SPSS into doing things it wasn't designed for. This program is no longer supported, so if you can get your hands on it, you'll have to figure it out yourself.

##### *Multinet*

Multinet analyzes both social network data (both whole and egonet) and traditional attribute data, and is thus well-suited to projects seeking to combine the two kinds of data.

##### *NodeXL*

NodeXL is an Excel plugin that does network visualizations and calculates basic network measures. It includes features designed to facilitate the analysis of social media networks.

*Sienna*

Sienna is used to analyze longitudinal network data. If you have data on the same network at two different points in time, you'll want this.

*Ora*

A good choice for multi-mode networks and dynamic networks. This is designed specifically for the study of organizations, but can be used to analyze any network. *Ora* does well with large networks.

**Course Outline**

1	<p><b>Course Organization and Introduction</b></p>
2	<p><b>Structural Perspectives</b></p> <p>Marin, Alexandra and Barry Wellman. 2011 "Social Network Analysis: An Introduction" forthcoming in <i>The Sage Handbook of Social Network</i>. London: Sage.</p> <p>Borgotti, Stephen and Lopez-Kidwell Virginie. 2011. "Social Network Analysis: An Introduction." Pp. 40-54 in <i>The Sage Handbook of Social Network Analysis</i>, edited by J. Scott and P. Carrington. London: Sage.</p> <p>Beiger, Ron. 1974. "The duality of persons and groups." <i>Social Forces</i>. 53:181-190.</p> <p>Feld, Scott L. 1981. "The Focused Organization of Social Ties." <i>American Journal of Sociology</i> 86: 1015-1035.</p> <p style="text-align: center;"><i>Supplemental Readings</i></p> <p>Ridgeway, Ceceilia. 1997. "Interaction and the Conservation of Gender Inequality: Considering Employment." <i>American Sociological Review</i> 62:218-235.</p> <p>Smith-Lovin and McPherson. 1993. <i>You Are Who You Know</i>.</p> <p>Tindall, D. B. and B. Wellman. 2001 "Canada as Social Structure: Social Network Analysis and Canadian Sociology." <i>Canadian Journal of Sociology</i> 26:265- 308.</p> <p>Freeman, Linton C. 2004. <i>The Development of Social Network Analysis: A Study in the Sociology of Science</i>. Vancouver: Empirical Press.</p> <p>Martin, John Levi. 2009. <i>Social Structures</i>. Princeton:Princeton University Press.</p>

3	<p><b>Network Data and Data Collection</b></p> <p>Marsden, Peter. 2005. "Recent Developments in Network Measurement." in Peter J. Carrington, John Scott, and Stanley Wasserman (eds.) <i>Advances in Social Network Analysis</i>. Cambridge: Cambridge University Press. Pp. 8-30</p> <p>Killworth, Peter. et. al. 1990. "Estimating the Size of Personal Networks." <i>Social Networks</i>. 12: 289-31</p> <p>Killworth, P. H. R. Bernard. 1976. Informant Accuracy in Social Network Data. <i>Human Organization</i>. 35:269-286</p> <p><i>Supplemental Readings</i></p> <p>Brewer, Devon. 2000. "Forgetting in the recall-based elicitation of personal and social networks " <i>Social Networks</i> 22: 29-43</p> <p>Lin, Nan, Yang-Chih Fu and Ray-May Hsung. 2001. "The Position Generator: Measurement Techniques for Investigations of Social Capital." Pp. 57-81 in Nan Lin, Karen Cook, and Ronald S. Burt (eds.), <i>Social Capital: Theory and Research</i>. New York: Aldine de Gruyter.</p> <p>Freeman, Linton C., A. Kimball Romney and Sue C. Freeman. "Cognitive Structure and Informant Accuracy." <i>American Anthropologist</i>. 2:310-325</p> <p>Campbell, Karen E. and Barrett A. Lee. 1991. "Name Generators in Surveys of Personal Networks." <i>Social Networks</i> 13:203-221.</p>
4	<p><b>Qualitative Social Network Analysis</b></p> <p>Hollstein, Betina. 2011. "Qualitative Approaches" to appear in John Scott and Peter Carrington (eds.) "Handbook of Social Network Analysis." London: Sage.</p> <p>Stack, Carol. 1974. <i>All Our Kin</i>. New York. Basic Books.</p> <p><i>Supplemental Readings</i></p> <p>Bearman, Peter S and Katherine Stovel. 2000. "Becoming a Nazi: A Model for Narrative Social Networks." <i>Poetics</i> 27:69-90</p> <p>Giordano, Peggy C. 1995. "The Wider Circle of Friends in Adolescence." <i>American journal of sociology</i>:661-697.</p> <p>Wong, Siu-Lun and Janet Salaff. 1998. "Network Capital: Emigration from Hong Kong." <i>British Journal of Sociology</i> 49:358-374</p> <p>Smilde, David. 2005. "A Qualitative Comparative Analysis of Conversion to Venezuelan Evangelicalism: How Networks Matter." <i>American Journal of Sociology</i>, 111(3): 757-796.</p> <p>Bearman, Peter S. and Kevin D. Everett. 1993. "The Structure of Social Protest, 1961-1983." <i>Social Networks</i> 15:171-200.</p>

5	<p><b>Social Support and Community</b></p> <p>Marsden, Peter V. 1987. "Core Discussion Networks of Americans." <i>American Sociological Review</i> 52:122-31.</p> <p>Wellman, Barry. 1979. "The Community Question: The Intimate Networks of East Yorkers." <i>American Journal of Sociology</i>, 84(5): 1201-33.</p> <p>Wellman, Barry &amp; Wortley, S. 1990. "Different Strokes from Different Folks: Community Ties and Social Support." <i>American Journal of Sociology</i>, 96(3): 558-88.</p> <p style="padding-left: 40px;"><i>Supplemental</i></p> <p>Moore, Gwen. 1990. "Structural Determinants of Men's and Women's Personal Networks." <i>American Sociological Review</i> 55: 726-35.</p> <p>Fischer, Claude S. 1982. <i>To Dwell Among Friends</i>. Chicago: University of Chicago Press.</p> <p>Fischer, Claude. 2011. <i>Still Connected: Family and Friends in America Since 1970</i>. New York: Russel Sage Foundation.</p>
6	<p><b>Social Capital</b></p> <p>Granovetter, Mark. 1973. "The Strength of Weak Ties." <i>American Journal of Sociology</i>. 78:1360-1380.</p> <p>Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." <i>American Journal of Sociology</i> 94: S95</p> <p>Lin, Nan. 2001. <i>Social Capital: A Theory of Social Structure and Action</i>. Cambridge: Cambridge University Press Chapter #</p> <p style="padding-left: 40px;"><i>Supplemental</i></p> <p>Lin, Nan. 1999. "Social Networks and Status Attainment" <i>Annual Review of Sociology</i>. 22:467-87</p> <p>Fernandez, Roberto M. and M. Lourdes Sosa. 2005. "Gendering the Job: Networks and Recruitment at a Call Centre". <i>American Journal of Sociology</i>. 111:859-904</p> <p>Marin, Alexandra. 2011. "Don't Mention It: Why People Don't Share Job Information, When They Do, and Why It Matters". <i>Social Networks</i>. 34: 181-192</p>

7	<p><b>Social Networks and Inequality</b></p> <p>Cattell, V. (2001). Poor people, poor places, and poor health: the mediating role of social networks and social capital. <i>Social science &amp; medicine</i> (1982), 52(10), 1501–16. Retrieved from <a href="http://www.ncbi.nlm.nih.gov/pubmed/11314847">http://www.ncbi.nlm.nih.gov/pubmed/11314847</a></p> <p>Harding, David J. 2009. “Violence, Older Peers, and the Socialization of Adolescent Boys in Disadvantaged Neighborhoods” <i>American Sociological Review</i> 74:445-464</p> <p>Seidel, M. L., Polzer, J. T., &amp; Stewart, K. J. (2013). Friends in High Places : The Effects of Social Networks on in Salary Discrimination Negotiations, 45(1), 1–24.</p> <p><i>Supplemental</i></p> <p>Erickson, Bonnie H. 1996. “Culture, Class, and Connections.” <i>American Journal of Sociology</i>. 102:217-251.</p> <p>Smith, Sandra S. “"Don't put my name on it": Social Capital Activation and Job-Finding Assistance among the Black Urban Poor.” <i>American Journal of Sociology</i>. 111:1-57</p> <p>Rankin, B., &amp; Quane, J. (2000). Neighborhood Poverty and the Social Isolation of Inner-City African American Families ". <i>Social Forces</i>, 79, 139–164.</p> <p>Small, Mario. 2009. <i>Unanticipated Gains</i>. Chicago: University of Chicago Press. Section 3.</p>
8	<p><b>Homophily and Diversity</b></p> <p>Coser, Rose Laub. 1975. “The Complexity of Roles as a Seedbed of Individual Autonomy.” In Louis A. Coser (ed.) <i>The Idea of Social Structure: Papers in Honor of Robert K. Merton</i>. New York, NY: Harcourt Brace Jovanovich.</p> <p>Diprete, T. A., Gelman, A., McCormick, T., &amp; Teitler, J. (2011). Acquaintanceship and Trust 1, 116(4), 1234–83.</p> <p>McPherson, J. Miller and Lynn Smith-Lovin. 1987. “Homophily in Voluntary Associations.” <i>American Sociological Review</i> 52: 370-79.</p> <p><i>Supplementary</i></p> <p>Kossinets, G., &amp; Watts, D. J. (2013). Origins of Homophily in an Evolving Social. <i>American Journal of Sociology</i>, 115(2), 405–450.</p> <p>Feld, Scott L. 1982. “Social Structural Determinants of Similarity among Associates.” <i>American Sociological Review</i> 47:797-801.</p> <p>McPherson, J. Miller, Lynn Smith-Lovin &amp; Cook, J. M. 2001. “Birds of a Feather: Homophily in Social Networks.” <i>Annual Review of Sociology</i>, 27, 415-44.</p>



9	<p><b>Social Networks and Health</b></p> <p>Bearman, Peter. 2004. "Chains of Affection: The Structure of Adolescent Romantic and Sexual Networks." <i>American journal of sociology</i> 110:44-91.</p> <p>Valente, Thomas. 2010. <i>Social Networks and Health</i>. Oxford: Oxford University Press. Chapters #</p> <p><i>Supplemental</i></p> <p>Christakis, Nicholas and James Fowler. 2007. The Spread of Obesity in a Large Social Network over 32 Years. <i>New England Journal of Medicine</i>. 357: 370-9</p> <p>Cohen-Cole, Ethan and Jason M Fletcher. 2008. "Detecting implausible social network effects in acne, height, and headaches: longitudinal analysis" <i>British Journal of Medicine</i> 337:a2533</p> <p>Noel, Hans, and Brendan Nyhan. 2011. "The 'unfriending' problem: The consequences of homophily in friendship retention for causal estimates of social influence." <i>Social Networks</i> 33(3):211-218.</p> <p>Smith, Kirsten P. And Nicholas Christakis. 2008. <i>Social Networks and Health</i>. <i>Annual Review of Sociology</i> 34:405-429</p> <p>Cornwell, B., &amp; Laumann, E. O. 2011. "Network Position and Sexual Dysfunction: Implications of Partner Betweenness for Men." <i>American Journal of Sociology</i> 117:172-208</p>
10	<p><b>Organizational Networks</b></p> <p>Granovetter, Mark. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." <i>American Journal of Sociology</i>. 91: 481-510</p> <p>Ron Burt. 1992. "The Social Structure of Competition." Chapter 1 in <i>Structural Holes</i>. Cambridge: Harvard University Press.</p> <p>Podolny. 2005. Joel. <i>Status Signals: A Sociological Study of Market Competition</i>. Princeton, NJ: Princeton University Press. (Chapters 1-2)</p> <p><i>Supplemental</i></p> <p>Uzzi, Brian 1996. "Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect." <i>American Sociological Review</i></p> <p>Baker, Wayne and Robert Faulkner. 1993. "The Social Organization of Conspiracy: Illegal Networks in the Heavy Electrical Equipment Industry." <i>American Sociological Review</i> 58:837-860.</p> <p>Gerlach, Michael. 1992. "The Japanese Corporate Network: A Blockmodel Analysis." <i>Administrative Science Quarterly</i> 105-139.</p> <p>Baum, Joel and Christine Oliver. 1991. "Institutional Linkages and Organizational Mortality" <i>Administrative Science Quarterly</i>. 36:187-218</p>

11	<p><b>Innovation and Diffusion</b></p> <p>Hargadon, Andrew Robert I. Sutton. 1997. "Technology Brokering and Innovation in a Product Development Firm". <i>Administrative Science Quarterly</i>. 42:716-749</p> <p>Burt, Ronald S. 2004. "Structural Holes and Good Ideas." <i>American Journal of Sociology</i>. 110:349-399.</p> <p>Lai, Gina and Odalia Wong. 2002. "The Tie-Effect on Information Dissemination: The Spread of a Commercial Rumor in Hong Kong." <i>Social Networks</i>. 24:49-75</p> <p style="padding-left: 40px;"><i>Supplemental</i></p> <p>Coleman, James. Elihu Katz and Herbert Menzel. 1957. "The Diffusion of an Innovation among Physicians". <i>Sociometry</i>. 4:253-270</p> <p>Burt, Ronald. 1987. "Social Contagion and Innovation: Cohesion Versus Structural Equivalence." <i>American journal of sociology</i> 92:1287-1336.</p> <p>Valente, Thomas. 2005. "Network Models and Methods for Studying the Diffusion of Innovations." Pp. 98-116 in Carrington, Peter J., John Scott and Stanley Wasserman (eds.). <i>Models and Methods in Social Network Analysis</i>. Cambridge, UK: Cambridge University Press.</p> <p>Lewis, Kevin, Jason Kaufman, Marco Gonzales, Andreas Wimmer, and Nicholas Christakis. 2008. "Tastes, Ties, and Time: A New Social Network Dataset Using Facebook.com." <i>Social Networks</i> 30: 330-342.</p>
12	<p><b>Paper Presentations</b></p>