Social Networks Analysis: Theory and Methods

Bernice Pescosolido and Stanley Wasserman
Indiana University

Logistics/Schedule
Seminar - Indiana University Memorial Union, Maple Room (Monday through Thursday)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Contact</th>
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<tr>
<td>8:30 a.m. to 11:15 a.m.</td>
<td>Bernice Pescosolido (<a href="mailto:pescosol@indiana.edu">pescosol@indiana.edu</a>)</td>
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<tr>
<td>11:15 a.m. to 12:15 p.m.</td>
<td>Lunch (See Restaurant Tips for suggestions and a map)</td>
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<tr>
<td>12:15 p.m. to 2:45 p.m.</td>
<td>Stanley Wasserman (<a href="mailto:stanwass@indiana.edu">stanwass@indiana.edu</a>)</td>
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<td>2:45 p.m. to 3:15 p.m.</td>
<td>Break</td>
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On Friday, seminar will be held in Wylie Hall 015. Directions will be given in class during the week.

Lab Sessions – Room 045, Swain Hall

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<td>3:15 p.m. to 5:30 p.m.</td>
<td>Ann McCranie, lab assistant (<a href="mailto:amccrani@indiana.edu">amccrani@indiana.edu</a>)</td>
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<tr>
<td>5:30 p.m. to 6:00 p.m.</td>
<td>Wrap-up, discussion</td>
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Course Description
This workshop covers the theory and methods of network analysis. It is designed for students, faculty, and other researchers in the social and behavioral sciences who are interested in understanding the breadth and depth of the social network approach and in learning how to translate theoretical conceptualizations of networks into empirical practice. Morning and afternoon sessions are coordinated so that each day presents theoretical, historical and substantive developments in the field with parallel issues and examples in data and analytic techniques.

Readings
There one required text for this class, and there will also be some additional articles (which will be provided) that we will ask you to read. There is a lot of reading; don’t panic. Simply try to become familiar with key terms and concepts – and read more in depth when you face issues in your own research.

Required Books (Can be purchased through Amazon.com or other online book sellers.)


Optional book


Schedule of Classes and Lab Exercises

Monday, June 11
Seminar: Principles of Network Theory and Terminology

This day will be devoted to introductions -- the underlying ideas of network theory, the kinds of data that are used, how network data are gathered, and matrix formats and notation. UCINet, NetDraw, Pajek will be introduced in the afternoon.

On Monday evening following lab, we will have a casual welcome reception. An invitation is included in your notebook.

Lab: Getting Familiar with UCINet, getting data into matrices, and drawing graphs with NetDraw.

Skim before Monday’s class:
Chapters 1, 2, 3 in Wasserman and Faust

Optional Reading/Review:

Tuesday, June 12
Seminar: The Pre-History and Early History of Network Theory

This day will look to Durkheim, Simmel and others who pioneered ideas about social interactions from a structural point of view. The theoretical work will also focus on how to translate these general ideas about social relations into network terms. The afternoon will focus on graph theory, issues of reachability and centrality, and basic network statistics and characteristics.

Lab: Centrality exercises

Review before Tuesday’s class:
Chapters 4, 5 in Wasserman and Faust

Optional Reading/Review:
Wednesday, June 13
Seminar: Sociometry and Moreno

This day will focus on the 30's and the innovations in standardized terminology, the use of the sociomatrix, etc. We will also use some of the morning seminar time to raise and answer questions about data collection. The afternoon will focus on balance theory, transitivity, cliques, cohesive subgroups, etc.

Lab: Cliques and subgroups

Review Before Wednesday’s Class:
Wasserman and Faust, Chapters 6 and 7

Optional Reading/Review:

Thursday, June 14
Seminar: Sampson and the Harvard School

On Thursday evening we will gather as a class immediately after lab at a local bar and grill for a casual dinner. Directions are included in your notebook.

This day will concentrate on the theoretical and methodological advances in network theory that occurred in the early and mid-1970s. We focus on Sampson’s Crisis in the Cloister in the morning with blockmodeling explained (in the early afternoon) and Sampson's data used in the computer applications in the late afternoon.

Lab: Blockmodeling, regular and structural equivalence, multidimensional scaling, hierarchical clustering.

Review before Thursday’s class:
Wasserman and Faust, Chapters 9 and 10

Optional Reading/Review:


**Friday, June 15**

**Seminar: New Developments and Concerns in Networks**

*The final day will examine more recent concerns in network theory and analysis (e.g., dynamics) and the methodological issues and tools required and currently available to deal with issues of change in networks.*

Lab: Developments in software, getting your own data ready for analysis.

**Review before Friday’s class:**


**Optional Reading/Review:**

