Class Syllabus
Spring 2015

ANG 5420 Social Network Analysis
Thurs. 9:35-12:35 Room: CBD 238
Instructor: Jeffrey C. Johnson johnsonje@ufl.edu
Office: 352-392-1020 Turlington B-129
Home: 252-258-4869
Office Hours: Monday 1:00-3:00
Thursday 1:00-3:00

Scope and Background: This class will examine the relationship between social networks and human behavior. Students will initially learn the basics of social network analysis that will provide for both a theoretical and practical background from which to investigate some important contemporary anthropological concepts and theories. Specifically, the class will focus on the use of a number of social network concepts, such as social capital, homophily, preferential attachment, propinquity, contagion, etc., and how they can be applied in anthropological theory and research. Class readings and projects will focus on sorting out and understanding the differences in definitions and uses of such concepts and the theoretical and empirical settings in which they have been used. Students will learn how to analyze social networks using software such as UCINET, NetDraw , EgoNet, and E-net. By the end of the course, participants should understand how to:

- Collect whole and personal network data and input it into social network analysis packages
- Transform data for analysis using graph-based and statistics-based social network measures
- Visualize network data using different methods and packages
- Apply node and group level social network measures
- Build and test network models at the nodal, dyadic and network levels
- Choose among social network designs based on research goals
- Apply social network theory to example data sets and to your own work

Required Text:
Steven Borgatti, Martin Everett and Jeffrey Johnson 2013 *Analyzing Social Networks* First Edition. Sage

Other supplemental readings will be assigned on a regular basis (will be made available to students)
Initial reading:

J.C. Johnson. "Anthropological Contributions to the Study of Social Networks: A Review." In (S. Wasserman and J. Galaskiowicz, eds.) Advances in Social Network Analysis: Research in the Social and Behavioral Sciences. Sage: Newbury Park. 1994.

Software:
UCINET, free 60-day trial available at http://www.analytictech.com/downloaduc6.htm
Egonet, freely available at http://sourceforge.net/projects/egonet/

Tutorial
The companion tutorials for the book: https://sites.google.com/site/analyzingsocialnetworks/home

A UCINET tutorial by Bob Hanneman & Mark Riddle is available at
http://faculty.ucr.edu/~hanneman/nettext/

Supplemental Textbooks
These textbooks are used in many introductory social network analysis courses.

John Scott 2000 *Network Analysis: A Handbook*. Second Edition. Newbury Park CA: Sage.

Tom Valente 2010 *Social Networks and Health: Models, Methods and Applications*, First Edition. Oxford University Press

Charles Kadushin 2011 *Understanding Social Networks: Theories, Concepts and Findings*, First Edition. Oxford University Press.

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

Course Requirements and Grading
A (90-100), A- (87-89), B+ (84-86), B (80- 83), B- (77-79), C+ (74-77), C (70-73), C- (67-69), D+ (64-66), D (60-63), D- (57-59), E (<57).
Written Assignments: Course grade will be determined on the basis of tests, written assignments, class participation, and a final project. Written work will constitute 25 percent of the final grade. A number of short papers or assignment focusing on some aspect of the readings will be given on a regular basis.
Class participation: A student's participation grade will be based on contributions to class discussions and will account for 10 percent of the final grade.
Tests: A short mid-term will be given. This will be in an essay and analytical format (solving some data analysis problems using UCINET). The test will constitute 25 percent of your grade.
Research Project: The remaining 40 percent of your grade will be determined on the basis of the final research project. This will involve a study using social network data. The data can be from secondary sources, historical sources, the internet, or collected by the student. The professor must approve topics and approaches. The project report should be between 10 and 20 double-spaced pages. The project will be due the day of the final.

For further information on UF's Grading Policy, see:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx
http://www.isis.ufl.edu/minusgrades.html

Policy on Late Assignments and Make-up work
Assignments must be complete by due date. Late assignments will lose one third-grade for each day late, unless excused for university-approved absences with documentation. Make-up work allowed only for excused absences

Academic Honor Code
Unless it is specifically connected to assigned collaborative work, all work should be individual. Evidence of collusion (working with someone not connected to the class or assignment), plagiarism (use of someone else's published or unpublished words or design without acknowledgment) or multiple submissions (submitting the same paper in different courses) will lead to the Department's and the University's procedures for dealing with academic dishonesty. All students are expected to honor their commitment to the university's honor code. See:
http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php

Accommodation for Students with Disabilities
If you need special arrangements for notes, exams or homework, we will do all we can to help. Students requesting classroom accommodation must first register with the Disability Resource Center (http://www.dso.ufl.edu/drc/). The DRC will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation. Please make any requests by the second week of class. Contact the Disability Resources Center (http://www.dso.ufl.edu/drc/) for information about available resources for students with disabilities.

UF Counseling Services
Resources are available on-campus for students having personal problems or lacking clear career and academic goals that interfere with their academic performance. These resources include:

- University Counseling Center (http://www.counseling.ufl.edu/cwc/), 301 Peabody Hall, 392-1575, personal and career counseling
- Student Mental Health, Student Health Care Center, 392-1171, personal counseling
- Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161, sexual counseling
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

Syllabus Change Policy
This syllabus is a guide for the course and is subject to change with advanced notice.

SOCIAL NETWORK ANALYSIS TENTATIVE SCHEDULE

Lecture 1: *Introduction and brief overview*
- ***TED talk by Christakis***
- ***Getting UCINET up and running***

Readings: *Analyzing Social Networks* Chapter 1
- Register with TED lecture series to view Christakis lecture on social network analysis (https://auth.ted.com/users/new?referer=http://www.ted.com/profiles/edit).
- Install Ucinet and Egonet on your personal computer.

Discuss research interests and how social network analysis may be useful in your research

Begin to think about social network project

Lecture 2: Basic concepts

- ***Basic concepts***
- ***Introduction to Ucinet menus and Netdraw***

Readings: *Analyzing Social Networks* Chapter 2

View Lecture 3: *Concepts of data management*

- ***Concepts of data management***
- ***Understanding the DATA and TRANSFORM menus in UCINET***

Readings: *Analyzing Social Networks* Chapter 5

WORKING WITH DATA

Lecture 4: *Graph-based network visualization*

- ***Graph-based visualization lecture***
- ***Visualize Networks in class***

Readings: *Analyzing Social Networks* Chapter 7

- Create network visualizations (one mode and two mode) using attributes

Lecture 5: *Cohesion, centralization, core-periphery*

- ***Whole network characterization***
- ***Calculate measures on one-mode data in Ucinet in class***

Calculate measures (e.g., cohesion centralization).
Readings: Analyzing Social Networks Chapter 9

- Calculate graph-level metrics on one mode data set

View Lecture 6: *Node level measures*

- ***Node level measure concepts***
- ***Calculate node level measures in Ucinet in class***

Calculate node level measures and output to statistical package
Readings: Analyzing Social Networks Chapter 10
Discuss how group-level versus node-level measures could be used in research

STATISTICAL MEASURES, SUBGROUPS, PERSONAL NETWORKS

Lecture 7: *Statistical measures, multivariate*

- ***MDS, QAP, Testing hypotheses***
- ***Tools menu***

Applying statistical analyses in Ucinet
Readings: Analyzing Social Networks Chapter 6
Discuss graph measures versus statistical measures, trade-offs

Lecture 8: *Creating subgroups*

- ***Cliques, Girvan Newman, Factions, Components***
- ***Ucinet and Netdraw subgroups***

Readings: Analyzing Social Networks Chapters 11
Ucinet and Netdraw subgroup analyses

MIDTERM EXAM

Lecture 9: *Ego networks*

- ***Ego network overview***
- ***Egonet and ENET***
- ***Ego network menu in Ucinet (McCarty, 30 minutes)***

Readings: Analyzing Social Networks Chapters 15
Create 50 alter study using Egonet and complete study
Discuss difficulties in answering personal network questions. Offer ideas about when personal network approach, whole network approach, or both could be used.

VISUALIZATION IN INTERVIEWS, BUILDING MODELS

Lecture 10: *Using personal network visualizations for interviews, Vennmaker and visual interface for collecting personal network data, Combining interviews into a data set, overlapping personal networks*

- ***Interpreting and personal network visualization***

Interview each other

Lecture 11: *Triad analysis, roles and equivalence*

- ***Triads census, equivalence, roles***
- ***Ucinet Roles and Positions Menu***

Readings: Analyzing Social Networks Chapters 12
Triadic census analysis and equivalence
Discuss how roles in networks of interest to anthropologists, such as communities, could be tested using equivalence.

Lecture 12: *Testing hypotheses, longitudinal analysis*

- ***QAP, P*, ERGM***
- ***Testing Hypotheses in Ucinet***

Readings: Analyzing Social Networks Chapters 8
Developing a network model from data set

INCORPORATING NETWORK ANALYSIS IN A RESEARCH DESIGN

Lecture 13: *Network measures as independent and dependent variables*

- ***Building network models***

Readings: Analyzing Social Networks Chapters 3
Read ethnography and modify to network design
Discuss the challenges of operationalizing a cultural anthropology research project as a network project. Pay specific attention to trade-off of thick description for network measurement

Lecture 14: Social network theoretical concepts – social capital (structural holes versus Simmelian ties), diffusion, small world, reciprocity, social support

- ***Network theories in cultural anthropology***

Discuss final presentations.

FINAL PRESENTATIONS