Description and Objectives
Social network analysis (SNA) is the study of the patterns of relations between actors (usually people). SNA is a way to operationalize social context in detail. In addition to providing data to test models that use social network measures to predict outcomes, network visualization provides a unique way to interact with respondents about that social context. Participants will learn about whole network analysis (relations within groups) and personal network analysis (relations surrounding individuals). This is a basic introductory hands-on course, employing examples germane to anthropological research. Whole networks will be analyzed using UCINET, NetDraw and ORA while personal networks will be collected and analyzed using EgoNet, Vennmaker 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 with different algorithms
- Apply node and group level social network measures
- Build network models
- Choose among social network designs based on research goals
- Apply social network theory to example data sets

Required Text:
Borgatti, Steven, Everett, Martin, Johnson, Jeffrey (2013) “Analyzing Social Networks” Sage

Software:
UCINET, free 60-day trial available at http://www.analytictech.com/downloaduc6.htm
Egonet, freely available at http://sourceforge.net/projects/egonet/
ORA, freely available at http://www.casos.cs.cmu.edu/projects/ora/software.php

Tutorial
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.


Course Outline
1. Overview of social network analysis
2. Whole network data collection (one mode and two mode)
3. Introduction to Ucinet and Netdraw
4. Network data transformation
5. Social network group level measures
6. Social network node level measures
7. Exporting data to other packages
8. Network visualization
9. Personal network data collection using Egonet and Vennmaker
10. Using social network measures and visualization to guide a qualitative interview
11. Build a personal network statistical model
12. Triad analysis, ERGM and network models
13. Introduction to Ora
14. Examples of network analysis and research designs
15. How to write a social network proposal
16. Presentations

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).
1. Class participation (10%). Your participation grade is based on your postings of the discussion topics for each week. Your postings should focus on solutions you developed
to confront the problems you faced with exercises and assignments. Your posting should be BRIEF and, if relevant, contain a screen shots showing relevant error messages and the path you selected to solve it. Each week’s posting is 2 points.

2. **Assignments (60%)**. Students are required to complete one assignment per week based on weekly themes. Each assignment is composed of several sub-sections (HW assignments) related to each of the main concepts covered during the week. Each weekly assignment is worth 12 points.

3. **Final presentation (30%)**. Your final presentation is a synthesis of your earlier assignments plus and additional analysis showing the integration of several types of datasets processed during the course. Your assignment should demonstrate your proficiency in responding to different questions and ability to use the two main software packages proficiently.

**Detailed Course Schedule:**

This course is 5 weeks long and meets two times a week for 3 hours.

**Week 1: Social Network Analysis Overview**

View: Lecture 1. *Whole network data collection, importing data*
Readings: Analyzing Social Networks Chapters 1, 3, 7
HW: Tutorial 1: Installing Ucinet, Egonet and Ora on your personal computer. View data collection forms and import one-mode and two-mode datasets
Digital drop box: Hand in screenshot of Ucinet, Egonet and Ora installed. Hand in one mode and two mode data sets.
Potential discussion topics for week 1: Post you research interests & how you think social network analysis will aid your research. Post ideas on how you can incorporate relational data and social structure into your research. Discuss how social network analysis might be used to operationalize theories of cultural anthropology. Online meeting 1: Introduce each other & discuss lecture & tutorial 1 & postings
View: Lecture 2. *Introduction to Ucinet menus and transforming data*
Readings: Analyzing Social Networks Chapters 4,11
HW: Tutorial 2: Symmetrize, dichotomize and recode data. Create one-mode from two mode
Digital drop box: Hand in completion certificate (or screenshot).
View Lecture 3. *Network visualization using Netdraw*
Readings: Analyzing Social Networks Chapters 5
HW: Tutorial 3: Create network visualizations (one mode and two mode) using attributes
Digital Drop box: Hand in completion certificate (or screenshot).
Online meeting 2: Discuss lecture & tutorial 2 & 3, postings& reading

**Week 2: Social network measures**

View Lecture 4: *Cohesion, centrality and centralization*
Calculate measures (cohesion, centrality, centralization. Work with output data sets and export data to statistical package
Readings: Analyzing Social Networks Chapter 8
HW: Tutorial 4: Working with output data sets
Digital drop box: Hand in completed analysis from Excel
Potential discussion board topics for week 2: Discuss how group-level versus node-level measures could be used in research
Online meeting 3: Discuss lectures & tutorials 3 & 4, postings, and readings
View: Lecture 5: Statistical measures, core periphery
HW: Tutorial 5 Applying statistical analyses in Ucinet
Digital drop box: post visualization using statistical analyses
View Lecture 6: Creating subgroups
Readings: Analyzing Social Networks Chapters 9
HW: Tutorial 6: Ucinet and Netdraw subgroup analyses
Digital drop box: post Netdraw subgroups using different methods
Online meeting 4: Discuss lectures & tutorials 5 & 6 & postings

**Week 3: Personal network data collection and analysis**
View Lecture 7- Personal network data overview
Readings: Analyzing Social Networks Chapters 13
HW: Create 50 alter study using Egonet and complete study
Digital drop box: post visualization of your network
Potential discussion board topics for week 3: Discuss difficulties in answering personal network questions. Offer ideas about when personal network approach, whole network approach, or both could be used.

Online meeting 5: Discuss lecture & tutorial 7 & postings
View Lecture 8- Combining interviews into a data set, overlapping personal networks
HW: Tutorial: Combine class interview files into a single data set. Run model using network data
Digital dropbox: Output from network model
View Lecture 9: Using personal network visualizations for interviews, Vennmaker and visual interface for collecting personal network data
HW Tutorial: land cover classification exercise; interpreting land use patterns; basic runs of unsupervised and supervised image classification
Digital drop box: post supervised classification
Online meeting 6: Discuss lectures & tutorials 8 & 9 & postings

**Week 4: Network models**
View Lecture 10: Triad analysis, roles and equivalence
Readings: Analyzing Social Networks Chapters 11
HW Tutorial: Triadic census analysis and equivalence
Digital drop box: Analyze data set
Potential discussion board topics for week 4: Discuss how roles in networks of interest to anthropologists, such as communities, could be tested using equivalence.
Online meeting 7: Discuss lecture & tutorial 10 & postings
View Lecture 11: *P and ERGM models*
Readings: Analyzing Social Networks Chapters 12
HW: Tutorial Developing a network model from data set
Digital Drop box: hand in Ucinet output
View Lecture 12: *Longitudinal analysis using ORA*
HW: Longitudinal analysis with ORA
Digital drop box: hand in ORA output
Online meeting 8: Discuss lecture & tutorial 11 & 12 & postings

**Week 5: Incorporating network analysis into research design**
View Lecture 13: *Network measures as independent and dependent variables, hypothesis testing*
Readings: Analyzing Social Networks Chapters 6
HW: Read ethnography and modify to network design
Digital drop box: post social network research design
Potential Discussion Board Topics for week 5: 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
Online meeting 9: Discuss lecture & tutorial 13 & postings
View Lecture 14: Social network theoretical concepts – social capital (structural holes versus Simmelian ties), diffusion, small world, reciprocity, social support
HW: Read example scenarios and match to theoretical concept
Digital drop box: post results
Online meeting 10: Discuss final presentations.

**Policy on Late Assignments**
Assignments must be complete by due date. Late assignments will lose one half grade for each day late.

**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.

**Accommodation for Students with Disabilities**
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.

**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, 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.