COMM 645, LAB 2: DUE SEPTEMBER 19, 2012

Please e-mail your lab to **comm645@ognyanova.net** before 2pm on Wednesday.

In this assignment you will have to demonstrate that you can compute and interpret node and network-level measures in UCINET. Lab 2 is based on one of the best-known network datasets: the Sampson monastery. You can find a description of the data provided by Analytic Technologies at the end of this document. The dataset itself is included in your UCINET folder – and available for download on Blackboard.

Your assignment consists of the following:

1. Using UCINET, unpack the Sampson dataset to obtain separate matrices for each relation.
2. Select one of the ten networks in the dataset.
3. Dichotomize the network, keeping the top three choices of the monks as links. Links valued 0 should stay 0, links with weights 1-3 should be recoded to 1.
4. Calculate the density of the binary network you obtained in step 3. How is this measure affected by the data collection strategy used by the researchers?
5. Based on the nature of the relationship represented in your network, formulate hypotheses about the levels of reciprocity and transitivity you might find.
6. Calculate reciprocity and transitivity measures for the network.
7. Select and compute at least three node-level centrality and network-level centralization scores. How would you interpret the results? What does each measure represent?
8. Visualize the network you selected using NetDraw. Set the size of nodes based on a centrality measure of your choice.

Your report from this lab should be formatted as a mini research paper. Include Methods (what you did), Results (what you discovered) and Discussion (what it all means). Follow the APA guidelines in your writing.

Paste all relevant excerpts from UCINET output in your report, highlighting the information that you've mentioned in the text of the document. In your discussion section, be sure to examine the differences between the various measures of centrality and centralization.

Sampson Monastery Data Description (Analytic Technologies)

"*Sampson recorded the social interactions among a group of monks while resident as an experimenter on vision, and collected numerous sociometric rankings. During his stay, a political "crisis in the cloister" resulted in the expulsion of four monks (Nos. 2, 3, 17, and 18) and the voluntary departure of several others - most immediately, Nos. 1, 7, 14, 15, and 16. (In the end, only 5, 6, 9, and 11 remained).*

Most of the present data are retrospective, collected after the breakup occurred. They concern a period during which a new cohort entered the monastery near the end of the study but before the major conflict began. The exceptions are "liking" data gathered at three times: SAMPLK1 to SAMPLK3 - that reflect changes in group sentiment over time (SAMPLK3 was collected in the same wave as the data described below). Information about the senior monks was not included.

Four relations are coded, with separate matrices for positive and negative ties on the relation. Each member ranked only his top three choices on that tie. The relations are esteem (SAMPES) and disesteem (SAMPDES), liking (SAMPLK) and disliking (SAMPDLK), positive influence (SAMPIN) and negative influence (SAMPNIN), praise (SAMPPR) and blame (SAMPNPR). In all rankings 3 indicates the highest or first choice and 1 the last choice. (Some subjects offered tied ranks for their top four choices)."