CIS 310 Introduction to the Structure and Mechanics of Social Networks

Exam 1 study guide topics

- be able to identify nodes and links for a network

- identify the underlying network for a specific scenario

- convert between drawings, edgelists, adjacency matrices and adjacency lists

- understand and be able to discuss the different link weights, direction and types

- identify and show that a network is a directed acyclic network

- describe and compare one-mode and two-mode networks

- convert two-mode to one-mode network

- understand the relationship between bipartite network and hypergraph

- identify and discuss trees and planar networks

- calculate the sum, transpose and product of 2 small matrices

- ability to calculate degree, closeness and betweenness

- discuss the importance of the degree, closeness, betweenness and eigenvector metrics

- calculate clustering coefficient and know the significance of it

- know what cocitation, bibliograph coupling and reciprocity are

- know and understand the difference between common neighbors and Jaccard

- understand density

- be able to discuss cliques

- reason about the metrics and structure of a network