Course Number: 3460:455/555
Course Name: Data Communications and Computer Networks
Course Credits: 3 credits
Schedule: Fall

Syllabus Date: November 7, 2007
Prepared By: Dr. Xuan-Hien Dang

Prerequisites:
Completion of 3460:316 or 401/501 with a grade of C- or better.

Text:

Bulletin Description:

Detailed Description:
An introductory course that covers the basic concepts involved in data communications and computer networks. Emphasis will be on analysis of communication protocol layers with respect to performance, error handling, and control functions. Special attention will be given to Client/Server model of interaction, and TCP/IP technology.

Course Goals:
To provide a comprehensive introduction to the networking field and help students develop basic network programming skills.

Topics:
1. Data transmission: transmission media, local asynchronous communication, long distance communication (carriers, modulation and modems).
2. LAN technologies and network topology. LAN wiring, physical topology and interface hardware.
4. WAN technologies and routing.
6. Network applications: client-server interaction, socket interface, DNS, electronic mail, FTP and HTTP.

Computer Usage:
Typically 4-5 assignments requiring programming in C, C++ or Java.
References: