ICS 461 : Voice and Data Communications

A. Course Description

Credits: 4

Prerequisites: ICS 141 Programming with Objects AND MATH 215 Discrete Mathematics

OR

CFS 280 Introduction to Computer Forensics

Lab Hours/ Weeks: Corequisites: None

Lecture Hours/ Week :

MnTC Goals: None

This course emphasizes the technical underpinnings of voice and data communication systems including engineering specifications, architectures, protocols and capacities. Relevant system design, development and operational considerations associated with deploying these communication systems are discussed.

B. Course Effective Dates: 08/24/2002 - Present

C. Outline of Major Content Areas:

See Course Description for major content areas.

D. Learning Outcomes (General)

1. Differentiate between analog and digital signals and communication systems.
2. Explain the appropriate applications of different communication media.
3. Apply concepts such as bandwidth, noise, multiplexing, and demultiplexing to solve simple communication problems.
4. Analyze the flow of information in networks using devices such as routers and bridges.
5. Explain the technologies used in digital telephony.
6. Use technical vocabulary to describe commonly used telecommunications systems.
7. Explain the applications of Internet infrastructure and services.

E. Learning Outcomes (MN Transfer Curriculum)

This contains no goal areas.

G. Special Information

Note: Students are responsible to both be aware of and abide by prerequisites for ICS courses for which they enroll, and will be administratively dropped from a course if they have not met prerequisites.