

**CIS 277**  
**NETWORK DESIGN & IMPLEMENTATION**

**COURSE DESCRIPTION:**

Prerequisites: CIS 275

Corequisites: None

This course focuses on the design, analysis, and integration of a network operating system. Topics include determination of a directory tree structure and object placement, creation of time synchronization strategy, security, and routing services. Upon completion, students should be able to implement a network design strategy, develop a migration strategy, and create a network implementation schedule. Course Hours Per Week: Class, 2. Lab, 2. Semester Hours Credit, 3.

**COURSE OBJECTIVES:**

The student will be able to:

- a. Work independently with a minimum of supervision or assistance
- b. Listen attentively
- c. Ask pertinent questions to gain appropriate information
- d. Participate in group discussions
- e. Create a design team and identify members to analyze and design a network plan based on a scenario
- f. Identify the critical factors and expectations in designing a network
- g. Plan a migration strategy for clients and servers
- h. Create an implementation strategy with a transition schedule that includes tasks, milestones and resources

**OUTLINE OF INSTRUCTION:**

- I. System Design Life Cycles
  - A. Analysis and Specification
  - B. Design
  - C. Implementation
  - D. Maintenance
  
- II. Design Guidelines and Issues
  - A. Directory Tree
    - 1) Naming Standards
    - 2) Drawing the Upper Layers of the Directory Tree
    - 3) Drawing the Lower Layers of the Directory Tree
  - B. Determine a Partition and Replication Strategy
  - C. Determine a Time Synchronization Strategy
  - D. Create an Accessibility Plan
  - E. Develop a Migration Strategy
  - F. Create an Implementation Schedule

### III. Projects in Design and Implementation

#### **REQUIRED TEXTBOOKS AND MATERIALS:**

To Be Announced

#### **STATEMENT OF DISABILITIES ACCOMMODATION:**

Students who require academic accommodations due to any physical, psychological or learning disability should request assistance from the Disabilities Services Coordinator within the first two weeks of the semester. Likewise, students who may require emergency medical attention due to a chronic health condition are encouraged to notify the Disabilities Services Coordinator by calling 686-3652 (V/TT) or by visiting the Counseling Services Office, room 23 of the White Building.