

Southeast Missouri State University

Department of Management

Course No. MG420

Title of Course: Telecommunication Management

Spring 2000

I. Catalog Description and Credit Hours of Course:

This is an introductory course on the topic of data communications and networking concepts, components, architectures, protocols, and standards used for transmitting information within a network. (3)

II. Prerequisites(s): MG375 Management Information Systems with a minimum grade of "C"

III. Purposes or Objectives of the Course:

Upon completion of this course, the student should be able to:

- A. Describe Local Area Networks and provide examples of their use and design in the business environment.
- B. Describe Wide Area Networks and provide examples of their use and design in the business environment.
- C. Describe and demonstrate examples of the different layers of a network system.
- D. Plan, design, and provide a cost analysis of a network system.

IV. Expectations of Students:

- A. Students will complete all assigned readings in textbook, handouts and relevant professional journal articles.
- B. Students will participate in classroom discussions and activities.
- C. Students will demonstrate achievement of course objectives through exams and projects.
- D. Students will develop a group project in which they will design and provide a cost analysis for a specified network configuration.
- E. Students will read and summarize two professional publication articles each week in order to gain insight into industry trends and standards.

V. Course Content or Outline:

- A. Introduction to Data Communications (3)
- B. Network applications (3)
- C. Fundamentals (7)

1. Physical layer: Architectures, devices, and circuits
 2. Physical layer: Data transmission
 3. Data link layer
 4. Network layer
- D. Networking Infrastructure (8)
1. Local Area Network operating systems
 2. Wide Area Networking concepts, architectures, and services
 3. Remote access and wireless networking
- E. Network Management (9)
1. Network design
 2. Network management
 3. Network security
- F. Client/Server Application Development and Deployment (9)
1. Client/server groupware
 2. Middleware
 3. Integration of Internet, Intranet, and Web-based technologies with client/server systems
- G. Emerging Technologies and the Future of Data Communications (6)
- VI. Textbook(s) and/or Other Required Materials or Equipment:
- A. Textbooks
1. Fitzgerald and Dennis, *Business Data Communications and Networking*, 6th ed., Wiley, 1999.
 2. J. E. Goldman, P. T. Rawles, and J. R. Mariga, *Client/Server Information Systems: A Business-Oriented Approach*, Wiley, 1999.
 3. W. J. Beydam, *Data Communications: From Basics to Broadband*, 3rd ed., Prentice-Hall, 2000.
- B. Professional Journal Publications
- C. Other References as Needed
- VII. Basis for Student Evaluation:
- A. Quizzes/Tests
- B. Homework assignments and weekly article summaries
- C. Group project

D. Classroom participation