Standard Course Outline for IS 355 Business Data Telecommunications

I. General Information
   • Course Number: IS 355
   • Course Title: Business Data Telecommunications
   • Units: 3
   • Prerequisites: IS 300
   • Course Coordinator / SCO Prepared by: Yu-Ming Wang
   • Date Prepared: October 2012

II. Catalog Description

Introduction to concepts and technology of telecommunications and networking in business and organizations. Basics of voice, data, image, and video transmission. Fundamentals of networking, use of Internet technology and telecommunication regulation and standards. Letter grade only (A-F).

III. Curriculum Justification(s)

As information systems have become essential to every business in today’s global marketplace, doing business the electronic way has become a competitive necessity. Faced with business opportunities and challenges, managers have to make investment decisions involving telecommunications products, services, and applications. As a business professional, you are expected to have a working knowledge of networks and telecommunications.

This course covers the fundamentals of telecommunications and networking technologies for business applications. Topics include analog & digital communications, transmission media, local area networks, wide area networks, network standards & protocols, Internet & the World Wide Web, electronic commerce applications, and infrastructure planning & design.

Upon completion, the student will meet the following three specific CBA learning goals:

• Learning Goal #1 – Critical Thinking
• Learning Goal #3 – Team and Interpersonal Skills
• Learning Goal #6 – Quantitative and Technical Skills

IV. Course Objectives

Upon completion of this course, students are expected to:

• Understand the fundamentals of networking and telecommunications;
Be familiar with typical home / business networks and applications;
Understand state-of-the-art Internet and electronic commerce technologies;
Be aware of critical issues in business telecommunications; and
Present hardware and software alternatives necessary to establish a network system.

V. Outline of Subject Matter

- Fundamentals: Encoding, Decoding and Digital Transmissions
- Network Standards and Major Protocols
- Wired Local Area Networks
- Wireless Networks
- Internetworking: Subnet, Netmasking, and Routing
- Network Security
- Network Management
- Emerging Network Applications
- Network Design Project

VI. Methods of Instruction

The course will be taught primarily by formal lectures in a computer lab. A typical class session includes lecture note presentation, in-class demonstration and discussion, as well as hands-on exercises using computers in the lab.

Textbooks

Textbooks on networking and telecommunications designed for business students are desirable. Below is an example:

Raymond R. Panko, Business Data Networks and Telecommunications, Prentice-Hall.

VII. Instructional Policies Requirements

This course follows the University policies on Final Course Grades, Grading Procedures, and Final Assessments (PS 05-07), Attendance (PS 01-01), Course Syllabi (PS 04-05), Final Course Grades, Grading Procedures, and Final Assessments (PS 05-07), and Withdrawals (PS 02-02 rev).

A. Assessment Criteria

Quizzes and Exams

A minimum of two exams should be given to students. A least one quiz is recommended before each exam.

Projects

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At least one group project on network design is strongly recommended. Through an integrative project, students learn how to integrate concepts from all topics discussed throughout the semester and solve practical network design problems in a business context through team work.

B. Required Statement

In compliance with university policy: Final grades will be based on at least three, and preferably four or more, demonstrations of competence. In no case will the grade on any class tests count for more than one-third of the course grade.

C. Attendance, Withdrawal, Late Assignments

Students are expected to attend courses and turn in assignments on time. Specific attendance and late assignment policies are up to each individual instructor’s discretion.

The withdrawal policy is the same as that of the university.

D. Disabilities

Students with disabilities are responsible for notifying their instructor as early as possible of their needs for an accommodation of a verified disability. A student with a disability is urged to consult with Disabled Student Services as soon as possible in order to identify possible accommodations to enhance academic success.