



## Standard Course Outline for IS 455 Local Area Networks

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### I. General Information

- ♦ IS 455
- ♦ Local Area Networks
- ♦ 3 Units
- ♦ Prerequisites: IS 301, IS 355
- ♦ Course Coordinator / SCO Prepared by: Mohsen Sahebame
- ♦ Date prepared / revised: October 2012

### II. Catalog Description

Technology and system development of local area networks. Network requirement analysis, design, implementation, and operation from user and network administrator perspectives. Network server management, wide area network and Internet connectivity, and network security and control. Design and set up of Local Area Network with Active Directory Services implementation on a client server environment.

### III. Curriculum Justification(s)

Upon completion of this course, the student should complete tasks which align with the CBA learning goal:

- a. Students will be able to demonstrate effective ways of design, set-up and operation of Local Area Network.
- b. Student will be able to set-up and configure printer and print server in LAN environment
- c. Students will be able to install Server and Client operating systems and implement local and global policy in LAN environment

Throughout the course students complete a variety of hands on assignments in order to develop and enhance their LAN skills. In addition, students will set up their own LAN independently as a group.

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

Learning Goal #5 – Business Functions

Learning Goal #6 – Quantitative and Technical Skills

### IV. Course Objective(s)

- a. The course will include a substantial amount of instruction and hands on experience in set-up and installation of Local Area Network. Throughout the semester, students are provided with appropriate feedback to students concerning their progress in meeting the University's expectations.
- b. Students must demonstrate the proper skills and knowledge of LAN installation and operation by the end of the third week of the semester.



- c. Students are required to set up and install Windows server 2008 in Local Area Environment, configuring print server and Active Directory Services
- d. This course prepares students for Microsoft Certified System Engineer Exams by administering MCSE sample test during the semester

**e. Outline of Subject Matter**

- a. Networking Concepts.
- b. LAN, MAN, WAN.
- c. Active Directory Services .
- d. Print Server and Printer Configuration.
- e. Local and Global Policy.
- f. User account creation and system administration

**f. Methods of Instruction**

The preferred method of instruction for this course is lecture/lab based. Within every section, opportunities for class discussion, in-class lab assignment, and student are required to complete lab activities every week. Instructors are encouraged to assess in-class activities to enhance student learning through small group interactions. Lectures enhanced through slide presentations are strongly recommended. Students should be rewarded for completing lab assignments.

Extent and Nature of Technology Use

This is an IT based course requiring updated hardware and software.

Required Text

Windows Server 2008 Administrator, Exam 70-646 , and the Lab Manual  
ISBN # 978-0-470-87507-0

**g. Instructional Policies Requirements**

- A. IS455 will conform to the policies of the university's handbook.
- B. Attendance and Participation Activities  
Students are expected to attend all class meetings and complete all assignments to ensure passing the class with a grade of C or better.



### C. Required Statement

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

The following assessment scale is recommended:

Lab activities	10%
Final Project	10%
Mid-Term 1	25%
Mid-Term 2	25%
Final Exam	30%

### D. Attendance, Withdrawal, Late Assignments

Students are expected to have regular, punctual attendance. Students are requested to notify instructor when they will be absent.

No late work is accepted, except by prior approval of instructor. Withdrawal policy is the same as that of the university.

### E. Special Needs Students

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.



**Course criteria:**

- LAN installation required in the course will be academic.
- The course will contain a detailed description of how a LAN is designed and installed.
- Students will set-up and install a minimum of two client LAN at the beginning and end of the semester
- Students will install and operate printer and print server.
- Students will produce different user accounts and apply different security policies on these accounts.