LINCOLN UNIVERSITY
Department of Business and Economics
Spring 2009

COURSE:	**BA 385 - Special topics in management information systems**
INSTRUCTOR:	Prof. Leonid Romanyuk
OFFICE HOURS:	MW 11:50-12:25, room 402, e-mail: <u>romanyuk@lincolnuca.edu</u>
TEXT (required):	**Computer Networks and Internets, 5th Edition,** **by Douglas E. Comer,** Prentice Hall, 2008, ISBN: 0136061273
OPTIONAL:	Publisher's Web resources at <u>http://www.pearsonhighered.com/student</u>, Author Website at <u>http://www.netbook.cs.purdue.edu</u>

CATALOG DESCRIPTION:
A topical investigation of a subject specified in the class schedule. Offered alternatively is a study of communications, and networks. This course includes concepts and terminology of Internet topics. Explanation of equipment, protocols, architecture, and transmission alternatives with use of the Internet. (3 units) Prerequisite: Instructor permission.

LEARNING OBJECTIVES:
This course is designed to familiarize students with the terminology and concepts related to data communication, computer networks, and internets. The course will be focusing on principles and concepts rather than covering specific technology or software -- technology and software may become obsolete in one to two years, but the principles will remain. As such, the coverage of this course is on breadth, not depth. At the end of the course, students will be expected to master the terminology and basic concepts, but they are not expected to know the engineering details of any technology.

INSTRUCTIONAL METHODS:
Lecture method is used in combination with the practical use of a LAN and the Internet tools to solve problems. The emphasis will be on learning by doing. Every student must participate in an intensive classroom activity. Reading, writing, computer lab, and project assignments will be made throughout the course.

TOPICAL OUTLINE OF THE COURSE: weekly schedule of topics is attached

REQUIREMENTS:
All students are required to attend the class. Continuous assessment is emphasized. Written or oral quizzes will be given every week. Students must complete all assignments and take all quizzes, mid-term exam and final exam ON THE DATES DUE. Plagiarism will result in the grade "F" and a report to the administration. ***No computers or cellular phones will be allowed to use during tests.***

GRADING:

Classroom activities and quizzes	every week	20%
Assignments and Projects	every week	30%
Mid-term exam	9th week	20%
Final exam	as scheduled	30%

Less than 60% total is an "F"; 75% total is "C+". Other grades will be calculated "on the curve" from the scores above.

SPRING 2009 SCHEDULE OF TOPICS AND REQUIRED READING

Read every chapter on the topic to be discussed in class before you come to class.

Week #	Topics	Chapter #
1 1/14/09	Introduction and Overview. Internet Trends.	1 - 2
2 1/21/09	Internet Applications and Network Programming. Traditional Internet Applications.	3 - 4
3 1/28/09	Overview of Data Communications. Information Sources and Signals. Transmission Media.	5 - 7
4 2/04/09	Reliability and Channel Coding. Transmission Modes.	8 - 9
5 2/11/09	Modulation and Modems. Multiplexing and Demultiplexing. Access and Interconnection Technologies.	10 - 12
6 2/18/09	Local Area Networks: Packets, Frames, and Topologies. The IEEE MAC Sub-Layer.	13 - 14
7 2/25/09	Wired LAN Technology (Ethernet and 802.3). Wireless Networking Technologies.	15 - 16
8 3/04/09	LAN Extensions: Fiber Modems, Repeaters, Bridges, and Switches. WAN Technologies and Dynamic Routing. Networking Technologies Past and resent.	17 - 19
9 3/11/09	**Review** **MIDTERM EXAM**	1 – 19
10 3/18/09	Spring recess	
11 3/25/09	Internetworking: Concepts, Architecture, and Protocols. IP: Internet Addressing.	20 - 21
12 4/01/09	Datagram Forwarding. Support Protocols and Technologies. The Future IP (IPv6).	22 - 24
13 4/08/09	UDP: Datagram Transport Service. TCP: Reliable Transport Service. Internet Routing and Routing Protocols.	25 - 27
14 4/15/09	Network Performance (QoS and DiffServ). Multimedia and IP Telephony (VoIP). Network Security.	28 - 30
15 4/22/09	Network Management (SNMP). Trends In Networking Technologies and Uses.	31 – 32
16 4/29/09	**Review.**	1 - 32
17 5/06/09	**COMPREHENSIVE FINAL EXAM**	