MISY 3360 BUSINESS DATA COMMUNCATION SYSTEM
SESSION: SPRING 2017 WEB
Efraín Adames, MPA

EAGLE PASS OFFICE B 107
PHONE 758-5015
E-MAIL eadames@sulross.edu

OFFICE HOURS:

EAGLE PASS	Tu	8:00 AM-4:00 PM
EAGLE PASS	Wed	8:00 AM-4:00 PM
OR BY APPOINTMENT ANYTIME		

I will be available by phone, e-mail or in my office to offer help on any subject related to the course. As we progress in the course, I may make changes to this syllabus to accommodate any particular subject area. In that sense, this syllabus is a guideline, not a contract.

Required Text: Business Data Communications and Networks 11e,
Jerry Fitzgerald and Alan Dennis, John Wiley & Sons ISBN 978-1-118-08683-4

1. **Program Objectives:**
    1. Students will demonstrate understanding the integration of information technologies to effectively transfer data using a computer network.
    2. Students will demonstrate how information technology support key business functions.
    3. Students will understand legal and ethical issues related to business networks and data communications.
4. **Course Objectives:** The student will be able to:
    1. Be familiar with the history of communications, information systems, the internet and its major components and types of networks. Be aware of the applications of data communications networks. Understand the role of network layers. Be familiar with the role of network standards.

    Assessment: Written exam, written chapter exercises and demonstration exercises.

    2. Demonstrate knowledge of how the Web works. Understand host-based, client-based and client-server application architecture. Understand how e-mail works. Be familiar with how FTP, Telnet and instant messenger works. Be familiar with the different types of network circuits and media. Understand the different types of data transmission, digital transmission of digital data, analog transmission of digital data, and digital transmission of analog data. Understand how modems and multiplexing works.

    Assessment: Written exam, written chapter exercises and demonstration exercises.

    3. Understand the role of the data link layer. Become familiar with two basic approaches of controlling access to the media and with common sources of error and their prevention. Understand three common error detection and correction methods. Demonstrate knowledge of commonly used data link protocols. Be aware of four transport/network layer protocols. Describe how packetizing and linking to the application layer works. Be familiar with addressing and routing. Understand how TCP/IP works.

    Assessment: Written exam, written chapter exercises and demonstration exercises.

4. Understand the roles of LANs in organizations. Understand the major components of LANs, traditional Ethernet LANs and switched Ethernet LANs. Identify the best practice recommendations for LAN design. Describe how to improve LAN performance. Understand the major components of WLANs. Be familiar with Wi-Max and Bluetooth WLANs. Describe how to improve WLAN performance. Be familiar with WLAN security. Identify the best practice recommendations for WLAN design. Understand the internetworking devices used in BNs and common backbone architectures. Be familiar with ATM and gigabit Ethernet. Describe how to improve BN performance. Identify the best practice recommendations for backbone design.

   Assessment: Written exam, written chapter exercises and demonstration exercises.

5. Understand circuit-switched services, dedicated-circuit services, packet-switch services and VPN services and their architectures. Identify the best practice recommendations for MAN/WAN design. Describe how to improve MAN and WAN performance. Understand the overall design of the internet. Be familiar with DSL, cable modem, and Wireless Application Protocol. Become familiar wikth the Internet 2.0.

   Assessment: Written exam, written chapter exercises and demonstration exercises.

6. Identify the major threats to network security. Demonstrate knowledge on how to conduct risk assessment, how to conduct business continuity planning and how to prevent intrusion. Be familiar with the overall process of designing and implementing a network. Identify techniques for developing a logical network design and a physical network design. Understand the roles and functions of network management software and tools.

2. **Assessments:** There will be written assignments and online exams to assess the students' progress and comprehension. Assessment links will be available on the schedule date until midnight.

3. **Course Policies: It is a policy for this course that after the due date there will be no make-up or reposition for the work required. Participation in the course is mandatory. After missing four (4) submissions the student will be dropped from the course.**

4. **Course Grading: Projected Grade Distribution**

   The projected cutoff point for A's, B's, C's, and D's are based on a 90%, 80%, 70%, and 60%, respectively.

***Distance Education Statement*: Students enrolled in distance education courses have equal access to the university's academic support services, library resources, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should submit online assignments through Blackboard, which require secure login information to verify students' identities and to protect students' information. The procedures for filing a student complaint are included in the student handbook. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website.**

CLASS SCHEDULE FOR MISY 3360, BUSINESS DATA COMMUNICATION SYSTEMS

Date	Topic	Chapter	Assessments
Jan 25	Introduction	1	Assessment 1a due (No textbook required)
Jan 30	Introduction	1	Assessment 1b due
Feb 6	Application Layers	2	Assessment 2 due
Feb 13	Physical Layer	3	Assessment 3 due
Feb 20	Data Link Layer	4	Assessment 4 due
Feb 27	Network and Transport Layers	5	Assessment 5 due
Mar 6	Chapters 2-5	2-5	Assessment 5b due
Mar 13	Local Area Networks	6	Assessment 6 due
Mar 20	Backbone Networks	7	Assessment 7 due
Mar 27	Wide Area Networks	8	Assessment 8 due
Apr 3	Internet	9	Assessment 9 due
Apr 10	Network Security	10	Assessment 10 due
Apr 17	Network Design	11	Assessment 11 due
May 1	Network Management	12	Assessment 12 due