ITEC 420: **COMMUNICATIONS & PC NETWORKING SYLLABUS**
INDUSTRIAL TECHNOLOGY DEPARTMENT
COLLEGE OF ENGINEERING
UNIVERSITY OF SOUTHWESTERN LOUISIANA

Course: ITEC 420-Communications and PC networking
Instructor: Dr. Cherif Aissi
Office: Rougeau Hall #230, Tel: (318) 482-6971

Objective: PC operating environment and hardware. Data communication concepts and hardware. Network design fundamentals. A study of LAN configurations and protocols. Hands on LAN hardware and software installation. LAN management, maintenance, upgrade, security and troubleshooting are included. The concepts of Wide Area Networks (WAN) are also covered.

Textbook: . "Hands-On Networking Essentials with Projects" by Michael J. Palmer, ITP Publishing Company, 1998.

Lab handout: . "Experiments in Data Communications and Computer Networking" by C. Aissi, 1998.
. "Windows for Workgroups User's Guide", Microsoft Corporation.

Reference: . "Local Area Networks" by David A. Stampler, 2nd Edition, Addison-Wesley Publishing Company, 1998.

Grading Criteria:

Exam	Percentage
Homework/ /Lab reports	20%
Quizzes	20%
Exam 1	20%
Exam 2	20%
Final exam	20%

The grading system is in accordance with university policy:

100-90%	A
89-80%	B
79-70%	C
69-60%	D
59-0%	F

Course Outline:

1. Lecture: Computer architecture, hardware and software. Read notes and do homework 1.
   Lab 1: Computer hardware.

2. Lecture: Operating system concepts. Read notes and do homework 2.
   Lab 2: DOS commands.

3. Lecture: Introduction to Networking. Read chapter 1 and do homework 3.
   Lab 3: Windows 3.11 for workgroup.

4. Lecture: Networking Standards and Models. Read chapter 2 and do homework 4.
   Lab 4: Networking using Windows 3.11 for workgroup.

5. Lecture: Topologies and Communications Media. Read chapter 3 and do homework 5.
   Lab 5: Thinnet: Bus Configuration.

6. Lecture: Network Tranports Systems and Protocols. Read chapter 4 and do homework 6.
   Lab 6: Token Ring configuration.

7. Lecture: High-Speed Network Transport. Read chapter 5 and do homework 7.
   Lab: Star configuration.

8. Lecture: Devices for Network and Internetwork Connectivity. Read chapter 6. Do homework 8.
   Lab 7: Hybrid configuration.

9. Lecture: Planning a Network. Read chapter 7. Do homework 9.
   Lab 8: Networking using Windows 95/98. Part 1.

10. Lecture: Fault Tolerance Techniques. Read chapter 8. Do homework 10.
    Lab 9: Networking using Windows 95/98. Part 2.

11. Lecture: Remote Network Access. Read chapter 9. Do homework 11.
    Lab 10: Networking using Windows NT. Part 1.

12. Lecture: Monitoring the Network. Read chapter 10. Do homework 12.
    Lab 11: Networking using Windows NT. Part 2.

13. Lecture: Managing the Network. Read chapter 11. Do homework 13.
    Lab 11: Networking using Windows NT. Part 2.

14. Lecture: Troubleshooting Network Problems. Read chapters 12. Do homework 14.
    Lab 12: Project presentation.

Class attendance and regulations

1. Regular attendance and punctuality is mandatory. (See Univ. Class attendance policy).

2. If you miss a class, have a friend pick up your assignments and any documents handed out.

3. When absent, your are responsible for the work you missed.

4. You are responsible to be prepared for the next class after missing one or more classes.

5. Have at least two phone numbers of your classmates to keep up with assignments.

6. Assignments are not accepted after the deadline date.

7. No make-up test will be given. If you miss a test for a justified reason, then the next test will count in proportion with the one you missed.

8. Review the previous lecture before attending the next lecture and be ready for any quiz.

9. No food, no drinks, no games in the classroom or the Lab.

SYLLABUS STATEMENT

EMERGENCY EVACUATION PROCEDURES

A map of this floor is posted near the elevator marking the evacuation route and the **Designated Rescue Area**. This is an area where emergency service personnel will go first to look for individuals who need assistance in exiting the building. Students who may need assistance should identify themselves to the teaching faculty.