SUSSEX COUNTY COMMUNITY COLLEGE

Master College Syllabus

NETWORKS AND

COMS230	TELECOMMUNICATIONS	
COURSE #	COURSE TITLE	CLASSIFICATION

3	2	2
CREDITS	CLASS HOURS	LAB HOURS

RECOMMENDED TEXTS:

Title:	Computer Networking
Author:	Stanford H. Rowe and Marsha L. Schuh
Publisher:	Prentice Hall
Publication Date:	2005

CATALOG DESCRIPTION

This course is a comprehensive introduction to wired and wireless communications. Topics include: basic concepts of networking; OSI and TCP/IP networking standards, various transmission media and topologies, networking protocols, hardware, software and local and wide area networks. Lab Fee Required.

PREREQUISITE: COMS113 or COMS114 or COMS120 or COMS142

TOPICS TO BE INCLUDED

1. Introduction to Communication Concepts
2. Network Classification
3. Network Architectures and Standards
4. Protocols
5. Data Link Control Protocols
6. Transmission media
7. Communication Circuits
8. Local Area Network
9. Wide Area Networks
10. Internetworking
11. The Internet
12. Network Security
13. Network Design and Implementation
14. Network Management and Operation

COURSE COMPETENCIES/LEARNING OUTCOMES:

In a manner deemed appropriate by the instructor and approved by the department, students will be able to:

1. Describe the basic concepts and fundamentals of Data Communication and Networking. (A.A.S. Computer Information Systems, Program Goal 4)
2. Explain network design principles and implementation issues. (A.A.S. Computer Information Systems, Program Goal 4)
3. Define network topologies, and understand point to point and broadcast protocols. (A.A.S. Computer Information Systems, Program Goal 4.)
4. Define the OSI Model, understanding the hardware and software involved in all layers
5. Define the layers of the TCP/IP Model, IP addressing, subnetting, IPV4 and IPV6 protocols, connection oriented and connectionless networking and address resolution.
6. Diagram and discuss how data is forwarded through; hubs, switches, routers and gateways within a network. (A.A.S. Computer Information Systems, Program Goal 4)
7. Explain the client/server protocol as applied to LAN's and WAN's
8. Define the concepts of network security and network ethics.

COMS230
Rev. 03/11(nc)