

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: PROG 412 Department: Information Technologies

Course Title: Networks 1 Semester: Spring Year: 1999

Objectives/Competencies

Course Objective	Competencies
1. To demonstrate proficiency in LAN and WAN Network Concepts.	<ol style="list-style-type: none">1. Explain the seven layers of the OSI model.2. Differentiate between each of the networking topology's.3. Describe the different type of physical media used in LAN's.4. Describe the bandwidth capabilities of each of the type of physical media.5. Explain the various types of communication hardware needed for WANs.6. Demonstrate where a repeater would be used.7. Demonstrate where a Bridge would be used.8. Demonstrate where a Router would be used.9. Explain how a message is formatted when it is sent over a LAN and a WAN.10. Define the format for the Ethernet frame.11. List the various uses of a hub.12. List the different methods of using a shared medium and the pros and cons of each method.13. Understand the different types of NIC cards and the

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<p>2. Perform hands-on computer Networking.</p>	<p>characteristics of each.</p> <p>14. Perform problems that show how to implement the rules (5-4-3) necessary to design a LAN.</p> <p>15. Understand Fault tolerance strategies and how these strategies are applied to LAN's and WAN's.</p> <p>16. List the different components of a LAN and how each one pieces together in order for the LAN to share resources.</p> <p>1. Install Network Interface Cards</p> <p>2. Connect computer's to hub</p> <p>3. Demonstrate using a GUI based Administration tool to administer a NOS.</p> <p>4. Install client software to connect to NOS.</p> <p>5. Demonstrate ability to login to NOS.</p> <p>6. Demonstrate ability to change parameters and setting of client software.</p> <p>7. Individually load the client software so the workstation can connect to the NOS.</p> <p>8. Demonstrate administration of a NOS by adding users, creating network folders and installing networked based application.</p> <p>9. Students must demonstrate administration of a NOS by adding creating a structure that mimic's a real life company and act as an administrator by performing various day to day tasks like deleting users, moving users, creating groups, and assigning rights and permissions to various resources and users.</p>