PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

MANAGING A WINDOWS NETWORK ENVIRONMENT
NETW 2040

Class Hours: 3.0                  Credit Hours: 4.0
Laboratory Hours: 3.0             Revised: Spring 07

NOTE: This course is not designed for transfer credit.

Catalog Course Description:
This course is designed for computer personnel who must install, support, and manage a small Microsoft Windows network environment. The course emphasizes configuring the Microsoft Windows server operating system for a small network installation. Major topics included in the course are managing desktop environments and software with group policies, managing file resources and disks, supporting Microsoft Active Directory, TCP/IP, DHCP, DNS, and Internet Information Services, configuring remote access services (RAS), and implementing disaster protection, backup, and recovery techniques.

Entry Level Standards:
The entering student MUST be familiar with Microsoft Windows 2003 Professional and Server operating systems and/or Windows XP and Server 2003 operating systems and be able to demonstrate intermediate-level computer hardware knowledge. Problem solving and analytical skills are also important.

Prerequisites:
NETW 1210 or consent of instructor

Textbook(s) and Other Course Materials:

Required Texts:

and


or


(Note: This single Training Kit is also used for NETW 1210, NETW 2040, NETW 2020 and NETW 2120 courses!)

References:
I. Week/Unit/Topic Basis:

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<th>Topic</th>
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<td>1</td>
<td>Introduction, Topic Overview, Schedule Overview of Microsoft Windows 2003 networking concepts</td>
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<td>2</td>
<td>Managing Client and Server Computers Managing Disks (Storage Resources)</td>
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<td>2-3</td>
<td>Using NTFS Permissions to Secure Computer Resources</td>
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<td>3</td>
<td>Administering Shared Drives and Printersv</td>
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<td>5-6</td>
<td>Microsoft Active Directory Concepts; Installing Active Directory: Extra material</td>
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<td>Managing Active Directory User and Computer Objects</td>
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<td>Managing Resources with Active Directory</td>
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<td>13-14</td>
<td>Network Protocols and TCP/IP Administration</td>
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<td>Dynamic Host Configuration Protocol (DHCP)</td>
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<td>Windows Name Resolution</td>
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<td>Domain Name System (DNS) Managing Internet Information Services (IIS)</td>
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II. Course Objectives*:

A. Demonstrate knowledge of designing/planning a Microsoft Windows 2003 System. I, II, IV
B. Demonstrate knowledge of installing Microsoft Windows 2003 (Professional and Server). II, IV
C. Demonstrate knowledge of managing/administering Microsoft Windows 2003. III, IV
D. Demonstrate knowledge of DNS. I, II, III, IV
E. Demonstrate knowledge of installing and configuring the DNS Service. III, IV
F. Demonstrate knowledge of Microsoft Active Directory Services. II, IV, V, VIII
G. Demonstrate knowledge of planning, implementing, and administering Microsoft Active Directory. II, III, IV
H. Demonstrate knowledge of Group Policy. III, IV
I. Demonstrate knowledge of applying and configuring Group Policy. III, IV
J. Demonstrate knowledge of managing software by using Group Policy. III, IV
K. Demonstrate knowledge of managing file resources and disks. III, IV
L. Demonstrate knowledge of configuring Remote Access Services (RAS). III, IV
M. Demonstrate knowledge of supporting DHCP and WINS in Windows 2003. III, IV
N. Demonstrate knowledge of implementing disaster protection in Windows 2003 systems. III, IV
O. Demonstrate knowledge of Windows 2003 TCP/IP. III, IV
P. Demonstrate knowledge of upgrading client operating systems. III, IV
Q. Demonstrate knowledge of performing Remote Installation Services (RIS). III, IV
R. Demonstrate knowledge of user and security management. III, IV
S. Demonstrate knowledge of solving common performance problems. I, III, IV
T. Demonstrate client service, teamwork skills and good communications skills to resolve problems and complete tasks. I, II, IX

*Roman numerals after course objectives reference goals of the NETW program.

III. Instructional Processes*:

Students will:

1. Use Windows 2003 operating systems commands and utilities to perform practical tasks for computing. Communication, Technological Literacy, Transitional Strategy, Active Learning
2. Demonstrate knowledge of networking, electronic communication, and associated subjects. *Technological Literacy, Active Learning*


5. Handle and examine modern computing devices. *Technological Literacy, Transitional Strategy, Active Learning*

6. Prepare documents and presentations for management explaining computer networks and communications hardware/software, etc. to meet user requirements. *Communication, Technological Literacy, Transitional Strategy, Active Learning*

7. Practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. *Transitional Strategies*

*Strategies and outcomes listed after instructional processes reference TBR’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

**IV. Expectations for Student Performance***:

Upon successful completion of this course, the student should be able to:


3. Install Windows 2003 from a CD-ROM. B,T

4. Install Windows 2003 from a network. B,T


6. Explain the features, operations, etc. of Microsoft DNS. D

7. Install, configure, and troubleshoot the DNS Service. E,T

8. Explain the features, operations, etc. of Active Directory Services. F

9. Install, configure, and troubleshoot the Active Directory Service. G,T

10. Explain the concept of Group Policy for managing a Windows 2003 system. H

11. Apply and configure Group Policy for managing desktop environments. I,T

12. Use Group Policy to manage software deployment and upgrades. J

13. Explain the tasks for managing file and disk resources in a Windows 2003 system. K

14. Use the available techniques for managing file resources on a Windows 2003 system. K,T
15. Understand the new authentication protocols in a Windows 2003 system. L
16. Configure inbound and outbound connections with RAS. L,T
17. Create and examine remote Access Policies. L
18. Explain new Microsoft DHCP and WINS functionalities in Windows 2003 system. M

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

Three (3) MAJOR examinations each worth 333 points will be given. Each will be cumulative. Hands-on learning activities done individually and in teams will also serve as the basis for course evaluation. For Chapters 13-19, there will be a "Chapter Examination" worth 50 points administered (350 points total for all 7 exams). This grading component will be worth 1,350 points. A COMPREHENSIVE final term project worth 650 points will be DUE NO LATER THAN the scheduled Final Exam period. This project WILL consist of a laboratory requiring a network system installation and configuration using ALL material learned during the semester.

B. Laboratory Expectations:

Laboratory exercises, examination question preparation, and project documentations are worth 1000 points.

C. Field Work:

N/A

D. Other Evaluation Methods:

N/A

E. Grading Scale:

2600 - 2340 points A (90%-100%)
2080 - 2339 points B (80%-89.9%)
VI. Policies:

Attendance Policy:

This course uses software and hardware not normally available out-of-class to students. Regular attendance is required for success in this class. Refer to the Class Policies document for more information.

Pellissippi State Technical Community College expects students to attend all scheduled required instructional activities. As a minimum, students in all courses MUST BE PRESENT for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course (Pellissippi State Catalog). Departments, Programs, and Instructors MAY have additional attendance requirements to enhance the learning environment in courses where specialized hardware and software is furnished by the College and may not be available to the students outside the laboratory.

Accommodations for disabilities:

If you need accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please inform the instructor immediately. Please see the instructor privately after class or in his/her office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127 or 131 or by phone: 694-6751 (Voice/TTY) or 539-7153.