ADMINISTERING ACTIVE DIRECTORY SERVICES (LAN)
NETW 2000

Class Hours: 3.0        Credit Hours: 4.0
Laboratory Hours: 3.0    Date Revised: Spring 02

NOTE: This course is not designed for transfer credit.

Catalog Course Description:
A study of installing, configuring and troubleshooting Active Directory: installing, configuring, managing, monitoring and troubleshooting DNS for Active Directory, change and configuration management; managing, monitoring and optimizing the components of Active Directory; and configuring, managing, monitoring and troubleshooting Active Directory security solution.

Entry Level Standards:
The entering student should have a familiarity with the Windows 2000 Server operating system and the Windows environment. The entering student should be able to keyboard at least 23 words per minute with 5 or fewer errors.

Prerequisite:
NETW1215 or consent of instructor

Textbook(s) and Other Reference Materials Basic to the Course:

I. Week/Unit/Topic Basis:

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<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Designing a Windows 2000 Network</td>
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<td>2</td>
<td>Implementing TCP/IP</td>
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<td>3</td>
<td>Implementing NWLink</td>
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<td>4</td>
<td>Monitoring Network Activity</td>
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<td>5</td>
<td>Implementing IPSec</td>
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<td>6</td>
<td>Exam One – Resolving Network Host Names</td>
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<td>7</td>
<td>Implementing Domain Name System (DNS)</td>
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<tr>
<td>8</td>
<td>Using Windows 2000 Domain Name Service</td>
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<tr>
<td>9</td>
<td>Implementing Windows Internet Name Service (WINS)</td>
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II. Course Objectives*:
A. Install, configure, and troubleshoot the components of Active Directory. I II IV
B. Install, configure, and troubleshoot DNS for Active Directory. III IV
C. Implement and troubleshoot Group Policy. I III VII
D. Deploy Windows 2000 by using Remote Installation Services. III IV V IX
E. Configure and troubleshoot security in a directory services infrastructure. III V IX XI
F. Manage and troubleshoot Active Directory replication. II IV V IX
G. Manage Active Directory objects. I III V VI VIII X XII

*Roman numerals after course objectives reference goals of the Business and Computer Technology department.

III. Instructional Processes*:

Students will:

1. Use professional tools to install, configure, and troubleshoot Windows 2000 Active Directory components and documentation. Technological Literacy Outcome, Personal Development Outcome, Transitional Strategy, Active Learning Strategy
2. Manage, monitor, and optimize the desktop environment using Group Policy. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy
3. Participate in an Active Directory deployment team for a large computing environment. Communication Outcome, Problem Solving and Decision Making Outcome, Transitional Strategy, Active Learning Strategy
4. Practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. Personal Development Outcome
5. Present finished products to the class. Communication Outcome, Personal Development Outcome, Active Learning Strategy
6. Participate in a peer review of individual and group projects. Problem Solving and Decision Making Outcome, Communication Outcome, Transitional Strategy, Active Learning Strategy
Strategy

7. Use professionally accepted methods and materials in completion of configuration management. *Technological Literacy Outcome, Personal Development Outcome, Transitional Strategy*

*Strategies and outcomes listed after instructional processes reference Pellissippi State’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:

1. Install Active Directory including sites and subnets. A B C
2. Manage Group Policy linking and administrative control. B C
3. Create and configure a Remote Installation Services client. D E F
4. Delegate and control access to Active Directory. C D E F
5. Apply security policies and configurations using templates. D E F
6. Manage intersite and intrasite replication. G
7. Monitor, maintain, and troubleshoot domain controller performance. G

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

V. Evaluation:

A. Testing Procedures:

Exams will comprise 40% of the final grade. Two exams will be given during the course of the semester. Dates will be announced in class and each exam will count 200 points of the final grade. There will be no make-up tests unless prior arrangements have been made with the instructor.

B. Laboratory Expectations:

Lab assignments will be made during the course of the semester. A late penalty will be imposed on any overdue assignment. Failure to satisfactorily complete all labs may result in a grade of F in the course. Labs will count 100 points (10%) of the final grade.

C. Field Work:

N/A

D. Other Evaluation Methods:

1. Individual Project:
One project consisting of a case study based upon individual student interests will be assigned. This project is intended to familiarize students with the basic Active Directory design. Failure to satisfactorily complete the individual project will result in a grade of F for the course. This project will count 250 points (25%) of the final grade. A portion of the project grade will be determined by peer evaluation.
2. Group Project:
One extensive group project will be assigned to create a complete Active Directory plan for a local business based upon instructor specifications. This project is intended to familiarize students with more advanced Active Directory features. It also provides an opportunity for participating in a group application development and integration effort. Failure to satisfactorily complete the group project may result in a grade of F for the course. This project will count 250 points (25%) of the final grade. A portion of the project grade will be determined by class peer evaluation and another portion by project group peer evaluation.

E. Grading Scale:
- 900 - 1000 A
- 800 - 899 B
- 700 - 799 C
- 600 - 699 D
- Below 600 F

VI. Policies:

A. Attendance Policy:
Pelissippi State Technical Community College expects students to attend all scheduled 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.

B. Academic Dishonesty:
Plagiarism, cheating, software piracy, non-educational use of computer systems and other forms of academic dishonesty are strictly prohibited.