

SAULT COLLEGE OF APPLIED ARTS & TECHNOLOGY
SAULT STE MARIE, ON



COURSE OUTLINE

Course Title: NETWORK CERTIFICATION II

Code No.: CSN305 Semester: 6

Program: COMPUTER NETWORK TECHNOLOGY

Author TYCHO BLACK

Date: January, 2001 Previous Outline Date: Jan. 1999

Approved: _____
Dean Date

Total Credits: 4

Prerequisite: **Computer Network Technician Diploma**
(or permission of the Co-ordinator)

Hours per week: 4

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I. COURSE DESCRIPTION:

This course continues the preparation for certification in a networking area of specialisation. At the present time the courses and exams identified as the Microsoft™ Certified Systems Engineer (MCSE) requirements will be the basis for this course. Lectures on the important topics will be provided with lab activities designed to develop hands-on skills. Students will use available resources, MCSE exam preparation guides, sample tests and hands-on lab activities to prepare for the specific objectives as published by Microsoft™. The chosen track for this course will be the Microsoft Windows 2000 Server curriculum. The exam prepared for in this course is *Exam 70-210: Installing, Configuring and Administering Microsoft® Windows® 2000 Professional*.

Rationale:

The MCSE curriculum is extensive and beyond the domain of a single course. This course in itself does not result in MCSE certification; formal exams must subsequently be taken at a Prometric™ Testing Centre at the student's own expense.

Current Windows 2000 MCSE Requirements:

Candidates must pass 5 core exams and two elective exams. The core exams require candidates to prove their expertise with desktop, server and networking components. The complete requirements are published at <http://www.microsoft.com/trainingandservices/>.

These specific requirements are subject to change; the four core operating systems exams are presently as follows:

- Exam 70-210: Installing, configuring and Administering Microsoft® Windows® 2000 Professional
- Exam 70-215: Installing, Configuring, and Administering Microsoft® Windows® 2000 Server
- Exam 70-216: Implementing and Administering a Microsoft® Windows® 2000 Network Infrastructure
- Exam 70-217: Implementing and Administering a Microsoft® Windows® 2000 Directory Services Infrastructure

Plus one of the following core exams:

- Exam 70-219: Designing a Microsoft® Windows® 2000 Directory Services Infrastructure
- Exam 70-220: Designing Security for a Microsoft® Windows® 2000 Network

- Exam 70-221: Designing a Microsoft® Windows® 2000 Network Infrastructure

Plus any two of the following elective exams:

- Exam 70-219: Designing a Microsoft® Windows® 2000 Directory Services Infrastructure
- Exam 70-220: Designing Security for a Microsoft® Windows® 2000 Network
- Exam 70-221: Designing a Microsoft® Windows® 2000 Network Infrastructure
- Exam 70-222: Migrating from Microsoft® Windows NT® 4.0 to Microsoft® Windows® 2000

The exam prepared for in this course is:

Exam 70-210: Installing, Configuring and Administering Microsoft® Windows® 2000 Professional

Skills Being Measured

This certification exam measures the ability to implement, administer, and troubleshoot information systems that incorporate Microsoft® Windows® 2000.

Before taking the exam, you should be proficient in the job skills listed below.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

A. Learning outcomes:

1. Install Windows 2000 Professional
2. Implement and Conduct Administration of Resources
3. Implement, Manage and Troubleshoot Hardware Devices and Drivers
4. Monitor and Optimize System Performance and Reliability
5. Configure and Troubleshoot the Desktop Environment
6. Implement, Manage and Troubleshoot Network Protocols and Services
7. Implement, Monitor, and Troubleshoot Security

B. Learning Outcomes and Elements of the Performance:

Upon successful completion of this course the student will demonstrate the ability to:

1. Install Windows 2000 Professional

Elements of the Performance:

- Perform an attended installation of Windows 2000 Professional.
- Perform an unattended installation of Windows 2000 Professional..
- Upgrade from a previous version of Windows to Windows 2000 Professional.
- Deploy service packs.
- Troubleshoot failed installations.

2. Implement and Conduct Administration of Resources

Elements of the Performance:

- Monitor, manage and, troubleshoot access to files and folders.
- Manage and troubleshoot access to shared folders.
- Connect to local and network print devices.
- Configure and manage file systems.

3. Implement, Manage and Troubleshoot Hardware Devices and Drivers

Elements of the Performance:

- Implement, manage and troubleshoot disk devices.
- Implement, manage and troubleshoot display devices
- Implement, manage and troubleshoot mobile computer hardware.
- Implement, manage and troubleshoot input and output devices
- Update drivers.
- Monitor and configure multiple processing units.
- Install, configure and troubleshoot network adapters..

4. Monitor and Optimize System Performance and Reliability

Elements of the Performance:

- Manage and troubleshoot driver signing.
- Configure, manage and troubleshoot the Task Scheduler.

- Manage and troubleshoot the use and synchronization of offline files.
- Optimize and troubleshoot performance of the Windows 2000 Professional desktop.
- Manage hardware profiles.
- Recover system state data and user data.

5. Configure and Troubleshoot the Desktop Environment

Elements of the Performance:

- Configure and manage user profiles.
- Configure support for multiple languages or multiple locations.
- Manage applications by using Windows Installer packages.
- Configure and troubleshoot desktop settings.
- Configure and troubleshoot fax support.
- Configure and troubleshoot accessibility services.

6. Implement, Manage and Troubleshoot Network Protocols and Services

Elements of the Performance:

- Configure and troubleshoot the TCP/IP protocol.
- Connect to computers by using dial-up networking.
- Connect to shared resources on a Microsoft network.

7. Implement, Monitor, and Troubleshoot Security

Elements of the Performance:

- Encrypt data on a hard disk by using Encrypting File System (EFS).
- Implement, configure, manage, and troubleshoot local security policy.
- Implement, configure, manage, and troubleshoot local user accounts.
- Implement, configure, manage, and troubleshoot local user authentication.
- Implement, configure, manage, and troubleshoot a security configuration.

III. TOPICS TO BE COVERED:

1. Planning for Windows 2000 Professional deployment
2. Windows 2000 Professional Installation
3. Managing Windows 2000 File Systems and storage
4. Managing Security and Users, Groups, Policies and Profiles.
5. Network Protocols
6. Remote Access
7. Printing
8. Windows 2000 performance tuning, disaster recovery and troubleshooting

IV. REQUIRED STUDENT RESOURCES/TEXTS:

Students will be required to purchase a Microsoft Certified Professional Approved Study Guide, specifically

“MCSE Guide to Microsoft® Windows® 2000 Professional”, by Ed Tittel and James Stewart. (Thomson Learning, ISBN 0-619-01513-6)

V. EVALUATION PROCESS/GRADING SYSTEM:

Students will be given on-line tests similar to the actual MCSE exams. The final marks will be based on a weighted-average of the tests taken; with the final test having the highest weight.

Weekly quizzes and assignments	50%
3 On-line Windows 2000 Professional Tests	50%

Note: This evaluation scheme is subject to change if circumstances warrant. Any changes will be discussed with students and reported in writing before implementation.

GRADING SYSTEM

A+	90	-	100%
A	80	-	89%
B	70	-	79%
C	60	-	69%

R	Repeat	Less than 60%
X	Incomplete	

UPGRADING OF INCOMPLETES

When a student's course work is incomplete or final grade is below 60%, there is the possibility of upgrading to a pass when a student meets all of the following criteria:

1. The student's attendance has been satisfactory.
2. An overall average of at least 50% has been achieved by semester's end on the tests taken.
3. The student has made reasonable efforts to participate in class and maintain the recommended schedule for assigned activities.

The nature of the upgrading requirements will be determined by the instructor and may involve re-testing and/or additional lab assignments

ATTENDANCE:

Absenteeism will affect a student's ability to succeed in this course. Absences due to medical or other unavoidable circumstances should be discussed with the instructor.

VI. SPECIAL NOTES:

- **Special Needs**
Students with special needs (e.g. physical limitations, visual or hearing impairments, or learning disabilities) are encouraged to discuss any required accommodations confidentially with the instructor and/or contact the Special Needs Office so that support services can be arranged.
- **Retention of Course Outlines**
It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other post-secondary institutions.
- **Course Modifications**
Your instructor reserves the right to make reasonable modifications to the course as deemed necessary to meet the needs of students or take advantage of new or different learning opportunities.

VII. PRIOR LEARNING ASSESSMENT:

Students who wish to apply for advanced standing in the course should consult the instructor. If a student has already achieved MCSE certification in the exam

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this course is based on, credit may be granted upon proof of certification being demonstrated.