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

COURSE OUTLINE

Course Title: LOCAL AREA NETWORKS II

Code No.: CSN203   **Semester:** 4

Program: COMPUTER NETWORK TECHNICIAN

Author TYCHO BLACK

Date: Jan. 2001 **Previous Outline Date:** Jan. 2000

Approved: _____   _____
                          Dean   **Date**

Total Credits: 5   **Prerequisite(s):** CSN202
Hours/Week: 4

Local Area Networks II   CSN203
COURSE NAME   *CODE NO.*

I.   COURSE DESCRIPTION:

This course continues the study of Local Area Networks and popular Network Operating Systems with the emphasis on the development of hands-on skills in network installation and management of Novell Netware environments.   A detailed study of Novell Netware (versions 3.x through 5.1), NDS (Novell Directory Services) and their associated tools, terminology and utilities are the major components of this course. Novell solutions will be compared with those of other vendors, especially in the area of directory services. Additional topics in network security will also be covered.

II.   LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

A.   Learning Outcomes:

1.   Perform administrative tasks on Novell Netware 3.x and 4.x networks.
2.   Implement Novell Directory Services (NDS).
3.   Install and manage a Novell Netware 5.1 network utilizing NDS.
4.   Compare NDS with other Directories.
5.   Demonstrate an awareness of typical security threats in NT, Unix and Netware networks and be able to take steps to prevent or minimize the impact of such threats.

B.   Learning Outcomes and Elements of the Performance:

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

1.   Perform administrative tasks on Novell Netware 3.x and 4.x networks.

Elements of the Performance:

- Describe the history of Novell Netware and compare various versions with respect to their operating environments, features, strengths and weaknesses.

Local Area Networks II   CSN203
COURSE NAME   *CODE NO.*

- Demonstrate an ability to perform basic management of a Netware 3.x server.
- Implement file system security in a Netware 3.x environment.
- Access network resources using various Netware clients.

This learning outcome will constitute approximately 15% of the course.

Reference: Notes provided.

2.   Implement Novell Directory Services (NDS).

Elements of the Performance:

- Work with NDS objects and naming conventions.
- Design an NDS tree.
- Utilize the Netware Administrator utility to manage NDS objects in a Netware 4.x environment.
- Implement security in an NDS tree, considering inheritance and the various ways objects obtain rights.
- Manage NDS partitions, time synchronisation and replication.

This learning outcome will constitute approximately 20% of the course.

Reference:
"A Guide to Netware 5.0: Network Administrator" by David Doering and Ted Simpson (Course Technology, Inc 2000, ITP)

3.   Install and manage a Novell Netware 5.x network.

Elements of the Performance:

- Install and configure Netware 5.1.
- Manage users, groups and login security in a Netware 5.1 environment.
- Create a Directory Tree structure and network file system.
- Manage trustee assignments and file attributes.
- Install Netware client software.
- Install applications on a Netware server.
- Install Netware printing support.
- Configure NT Server for interoperability with Netware servers.
- Manage a Netware 5.1 network including backups and remote management.

This learning outcome will constitute approximately 40% of the course.

Reference:
> "A Guide to Netware 5.0: Network Administrator" by David Doering and Ted Simpson (Course Technology, Inc 2000, ITP)

4. Compare Netware 5 with Windows 2000, and NDS with other Directories.

Elements of the Performance:

- Compare X.500, LDAP and Active Directory architecture, strengths and weaknesses.
- Compare Windows 2000 with Netware 5.

This learning outcome will constitute approximately 10% of the course.

Reference: Notes provided.

5. Demonstrate an awareness of typical security threats in NT, Unix and Netware networks and be able to take steps to prevent or minimize the impact of such threats

Elements of the Performance:
- Demonstrate awareness of the most common security threats in networks.
- Implement measures to secure a network from security threats and recover from attacks.
- Be able to access current security-related information on the Internet and elsewhere, to secure a network from attacks.

This learning outcome will constitute approximately 15% of the course.
Reference:
> Notes and Internet-based resources.

III. TOPICS TO BE COVERED:

1. Netware v3.1x server management and configuration.
2. Netware v5.1 installation, management and configuration.
3. NDS design and implementation.
4. Comparison between NDS and various other directory services.
5. Network security issues.

Local Area Networks II   CSN203
COURSE NAME   *CODE NO.*

IV.   REQUIRED STUDENT RESOURCES/TEXTS:

TEXT BOOK:
    "A Guide to Netware 5.0: Network Administrator" by David Doering and Ted Simpson (Course Technology, Inc 2000, ITP)

V.   EVALUATION PROCESS/GRADING SYSTEM:

3 WRITTEN TESTS   60%
LAB ASSIGNMENTS and QUIZZES   40%

(The percentages shown above may vary slightly if circumstances warrant.)

NOTE: *It is necessary to pass both the theory and the lab parts of this course.* *It is not possible to pass the course if a student has a failing average in the three written tests but is passing the lab portion (or vice versa).*

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.
3.   The student has not had a failing grade in all of the theory tests taken.
4.   The student has made reasonable efforts to participate in class and complete assignments.

The nature of the upgrading requirements will be determined by the instructor and may involve one or more of the following: completion of existing labs and assignments, completion of additional assignments, re-testing on individual parts of the course or a comprehensive test on the entire course.

Local Area Networks II   CSN203
COURSE NAME   *CODE NO.*

LABS:
Lab activities represent a very important component of this course. Because of this, **attendance is mandatory** and the satisfactory completion of all lab activities is required. *It is the student's responsibility to discuss absences from regularly scheduled labs with the instructor so that alternate arrangements (where possible) can be made to complete the lab requirements.*

Required lab report requirements will be detailed before labs are assigned. **A late penalty will be applied for labs handed in after the due date.**

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. Attendance will be taken and those with unsatisfactory attendance (more than 10% of the classes missed) will not be allowed any upgrading, rewrites or other special consideration.

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. This course is not eligible for challenge at the present time.