

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



Sault College

**COURSE OUTLINE**

**COURSE TITLE:** Internet / Intranet / Extranet

**CODE NO. :** CSN300 **SEMESTER:** Five

**PROGRAM:** Computer Systems Support

**AUTHOR:** Dan Kachur

**DATE:** August 2000

**APPROVED:**

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**DEAN**

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**DATE**

**TOTAL CREDITS:** 5

**PREREQUISITE(S):** CSN205

**HOURS/WEEK:** 4

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*School of Trades & Technology*  
*(705) 759-2554, Ext. 642*

**I. COURSE DESCRIPTION:**

Students will establish an Internet / Intranet environment using appropriate network infrastructure including a web server and database. A virtual private network connection will be made to an Extranet.

Windows NT 4 server will be the hands-on learning tool that will support installation of DHCP, WINS, DNS, IIS and SQL Servers.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

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

**1. Install and configure DNS, DHCP, WINS, and IIS servers.**

Potential Elements of the Performance:

*This learning outcome will constitute approximately 30% of the course.*

- Install and configure Windows NT server
- Install and configure IIS web server
- Obtain an overview of name resolution
- Understand the concepts of DHCP, WINS, and DNS
- Master NetBIOS and DNS name resolution
- Install and configure a DHCP server
- Create a DHCP scope
- Test DHCP from Windows 98
- Learn the purpose of WINS
- Install and configure a WINS server
- Identify the WINS database
- Perform a WINS test activity from Windows 98
- Install a DNS server
- Create a DNS namespace
- Configure zones and records for DNS
- Test DNS
- Install IIS web server
- Grant and revoke permissions
- Contrast virtual servers vs. multiple servers
- Produce user tracking and performance reports

## **2. Install and configure SQL Server**

### Potential Elements of the Performance:

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

- Describe the evolution and important features of client / server Database environments in general and Microsoft SQL server in particular
- Install Microsoft SQL server
- Explore SQL manager
- Configure a user connection
- Configure ODBC from a client system to access SQL server
- Grant and revoke permissions
- Define alerts
- Apply database sharing

## **3. Install and configure an Intranet site.**

### Potential Elements of the Performance:

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

- Define an Intranet
- Plan an Intranet
- Identify your Intranet audience
- Identify and select appropriate Intranet software to install
- Verify adequate hardware resources
- Define bandwidth requirements
- Plan for Intranet growth
- Install and configure Groupware for information sharing

#### **4. Secure your Intranet**

Potential Elements of the Performance:

*This learning outcome will constitute approximately 30% of the course.*

- Define security
- Identify security risks and potential for security threats
- Understand key concepts such as: sniffing, eavesdropping, crackers and spoofing
- Understand remote access security issues
- Learn various firewall terminology
- Protect network users from viruses
- Implement a security policy
- Filter packets
- Apply public key encryption
- Implement audit tools
- Implement a proxy server
- Secure your site for e-commerce
- Test your security by attempting to intrude

#### **5. Connect to an Extranet.**

Potential Elements of the Performance:

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

- Prepare a RAS (Remote Access Server) VPN connection
- Implement user, tunnelling, and encryption security
- Share information between two Intranets

### **III. REQUIRED RESOURCES/TEXTS/MATERIALS:**

Title: Web Servers, Security, & Maintenance  
Author: Eric Larson, Brian Stephens  
Publisher: Prentice Hall  
ISBN: 0-13-022534-7

**IV. EVALUATION PROCESS/GRADING SYSTEM:**

3 WRITTEN TESTS (20% each)	60%
TAKE-HOME AND LAB ASSIGNMENTS	40%

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

The following semester grades will be assigned to students in postsecondary courses:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 - 100%	4.00
A	80 - 89%	3.75
B	70 - 79%	3.00
C	60 - 69%	2.00
R (Repeat)	59% or below	0.00
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field placement or non-graded subject areas.	
U	Unsatisfactory achievement in field placement or non-graded subject areas.	
X	A temporary grade. This is used in limited situations with extenuating circumstances giving a student additional time to complete the requirements for a course (see <i>Policies &amp; Procedures Manual – Deferred Grades and Make-up</i> ).	
NR	Grade not reported to Registrar's office. This is used to facilitate transcript preparation when, for extenuating circumstances, it has not been possible for the faculty member to report grades.	

### **ELIGIBILITY FOR X GRADES / 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.
6. The student has made reasonable efforts to participate in class and complete assignments.

Note: **The opportunity for an X grade is usually reserved for those with extenuating circumstances.** 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.

### **V. SPECIAL NOTES:**

#### Special Needs:

If you are a student with special needs (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your instructor and/or the Special Needs office. Visit Room E1204 or call Extension 493, 717, or 491 so that support services can be arranged for you.

#### 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 postsecondary institutions.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Rights and Responsibilities*. Students who engage in “academic dishonesty” will receive an automatic failure for that submission and/or such other penalty, up to and including expulsion from the course/program, as may be decided by the professor/dean. In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Course outline amendments:

The Professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Substitute course information is available in the Registrar's office.

**VI. PRIOR LEARNING ASSESSMENT:**

Students who wish to apply for advanced credit in the course should consult the professor. Credit for prior learning will be given upon successful completion of a challenge exam or portfolio.

**VII. DIRECT CREDIT TRANSFERS:**

Students who wish to apply for direct credit transfer (advanced standing) should obtain a direct credit transfer form from the Dean's secretary. Students will be required to provide a transcript and course outline related to the course in question.