CANADORE
college

COURSE NAME:	CST170 Basic Administration of Microsoft Windows Server
Credit Value:	4
Total Course Hours:	56
Prerequisite Course(s):	CST110
Corequisite Course(s):	None

COURSE DESCRIPTION

This course provides students with the knowledge and skills necessary to perform basic administration tasks on a Microsoft Windows Server operating system. Topics such as installation, user account creation and maintenance, permissions, printing, hardware and disk storage will be covered through lecture and hands-on exercises.

LAND ACKNOWLEDGEMENT

Canadore College resides on the traditional territory of the Anishinaabeg and within lands protected by the Robinson Huron Treaty of 1850. This land is occupied by the people of Nipissing First Nation since time immemorial.

PLAR INFORMATION

This course is eligible for Prior Learning Assessment and Recognition. Students are advised to discuss options with their program coordinator.

COURSE LEARNING OUTCOMES

Upon completion of this course, the student will have reliably demonstrated the ability to:

1.0 Install Windows Servers in Host and Compute Environments.

    1.1 Install, upgrade, and migrate servers and workloads.

    1.2 Create, manage, and maintain images for deployment.

2.0 Implement Storage Solutions.

    2.1 Configure disks and volumes.

    2.2 Implement server storage.

    2.3 Implement data de-duplication.

3.0 Implement Hyper-V .

    3.1 Install and configure Hyper-V.

    3.2 Configure virtual machine (VM) settings.

    3.3 Configure Hyper-V storage.

    3.4 Configure Hyper-V networking.

4.0 Implement Windows Containers.

    4.1 Deploy Windows containers.

    4.2 Manage Windows containers.

5.0 Implement High Availability.

    5.1 Implement high availability and disaster recovery options in Hyper-V.

    5.2 Implement failover clustering.

    5.3 Implement Storage Spaces Direct.

    5.4 Manage failover clustering.

    5.5 Manage VM movement in clustered nodes.

    5.6 Implement Network Load Balancing (NLB).

6.0 Maintain and Monitor Server Environments.

    6.1 Maintain server installations.

    6.2 Monitor server installations.

GENERAL EDUCATION

This is not a General Education course.

PROGRAM OUTCOMES

This course contributes to the following Ministry of Colleges and Universities approved program learning outcomes (PLO):

Computer Systems Technician- Networking

1. Identify, analyze, develop, implement, verify and document the requirements for a computing environment.

2. Contribute to the diagnostics, troubleshooting, documenting and monitoring of technical problems using appropriate methodologies and tools.

3. Implement and maintain secure computing environments.

4. Implement robust computing system solutions through validation testing that aligns with industry best practices.

9. Assist with the implementation of computer systems and cloud solutions.

10. Install, configure, troubleshoot, maintain, upgrade and decommission computing system infrastructures.

11. Automate routine tasks using scripting tools and programming languages.

Computer Systems Technology- Networking

1. Identify, analyze, design, develop, implement, verify and document the requirements for a computing environment.

2. Diagnose, troubleshoot, document and monitor technical problems using appropriate methodologies and tools.

3. Analyze, design, implement and maintain secure computing environments.

4. Analyze, develop and maintain robust computing system solutions through validation testing and industry best practices.

9. Investigate emerging trends to respond to technical challenges.

10. Integrate multiple software and hardware components using appropriate systems, methodologies, and connection protocols.

11. Analyze, plan, design, develop, test, and implement computing devices and networked systems (software or hardware) in accordance with appropriate functional requirements and standards.

14. Develop, test and maintain software applications for systems integration.

ESSENTIAL EMPLOYABILITY SKILLS OUTCOMES

This course contributes to the following Ministry of Colleges and Universities approved essential employability skills (EES) outcomes:

4. Apply a systematic approach to solve problems.

5. Use a variety of thinking skills to anticipate and solve problems.

6. Locate, select, organize, and document information using appropriate technology and information systems.

7. Analyse, evaluate, and apply relevant information from a variety of sources.

10. Manage the use of time and other resources to complete projects.

11. Take responsibility for one's own actions, decisions, and consequences.

EXTERNAL COURSE ACCREDITATIONS AND CONDITIONS

There are no external accreditations or conditions identified for this course.

COURSE EVALUATION

Evaluation Item	Weight
Labs	15
Assignments	30
Quizzes	15
Tests	40

COURSE PASS GRADE

50

GRADING SYSTEM

A+:	90-100%	B+:	77-79%	C+:	65-69%	D:	50-54%	S - Satisfactory
A:	85-89%	B:	73-76%	C:	60-64%	F:	0-49%	I - Incomplete
A-:	80-84%	B-:	70-72%	D+:	55-59%			F- Repeat Course, included in GPA
								FS- Failure Supplemental
								FR- Repeat course, excluded from GPA

*For a complete chart of grades and descriptions, please see the Grading Policy.

LEARNING RESOURCES

Course Textbooks:

Required:

Title:	70-740 Installation, Storage, and Compute with Windows Server 2016
Author:	Craig Zacker
Publisher:	Microsoft Press
Edition:	
Print ISBN:	9781119126683
eBook ISBN:	9780735697522

REQUIRED SUPPLIES

250 GB(Minimum) External Hard drive (for installing virtual machines)

Resources listed on the course outline support the achievement of learning outcomes, and may be used throughout the course to varying degrees depending on the instructor's teaching methodology and the nature of the resource.

Technology requirements - https://www.canadorecollege.ca/BYOD

The Harris Learning Library's staff can help you find resources to support your learning - www.eclibrary.ca

LEARNING ACTIVITIES

Lecture, in-class exercises, hands-on activity

DELIVERY MODE

This course may be delivered, in whole or in part, in a number of modalities, including In-Person, Remote (synchronous and/or asynchronous), hybrid, or Hyflex, as per accreditation and/or regulatory standards where appropriate. This information is identified on the course schedule (student and faculty).

RECORDING GUIDELINES

This class may be recorded by faculty of the College. Faculty will inform students when recording of the class commences and ceases. 'Recorded' means that the audio-visual and chat portions of the class will be recorded and then be stored on the College or vendor provider server. They will be made available to students, but only for the express and sole use of those registered in this course. If you have any questions or concerns about this recording, please contact your instructor or the College's privacy officer at privacy.officer@canadorecollege.ca. Full recording guidelines can be found at: https://cdn.agilitycms.com/canadore-college/academic-centre-of-excellence/Canadore%20Recording%20Guidelines.pdf

ACADEMIC POLICIES

Canadore College is committed to the highest standards of academic integrity, and expects students to adhere to these standards as part of the learning process in all environments. The College's Academic Integrity policy seeks to ensure that all students understand their rights and responsibilities in upholding academic integrity and that students receive an accurate and fair assessment of their work. Please review the Academic Integrity policy (A-18) and other academic policies found on our website: https://www.canadorecollege.ca/about/policies.

COLLEGE POLICIES

•   Protecting human rights in support of a respectful college community

For college policies please see: http://www.canadorecollege.ca/about-us/college-policies.

Accessibility Learning Services for Students with Disabilities - Student Success Services

Student Success Services provides comprehensive support to students. We aim to ensure that all students have equal access to educational opportunities and can succeed in their academic journey. Our services focus on reducing and eliminating barriers related to education through individualized accommodations and support. If you are a student with a disability, we encourage you to register with Accessible Learning by completing the Student Success – Accessible Learning Services Form (https://canadorecollege-accommodate.symplicity.com/public_accommodation/).

For more detailed information about the services offered, please visit our webpage: Student Success Services - (https://www.canadorecollege.ca/support/student-success-services). To connect with Student Success Services email studentsuccessnow@canadorecollege.ca or call 705.474.7600 ext 5205.

FIRST PEOPLES' CENTRE:

A culturally safe environment offering CONFIDENTIAL student focused services, drop in or make an appointment to access:

- One on one counselling
- Elder in residence program
- Peer tutoring
- Peer mentorship
- Lunch & learn workshops on study skills, self-care, life skills
- Learning Resource Centre

Drop by our offices at C254 College Drive, W103 Commerce Court or call 705 474 7600 Ext. 5961 College Drive / 5647 Commerce Court.

https://www.canadorecollege.ca/experience/indigenous-student-experience

WAIVER OF RESPONSIBILITY

Every attempt is made to ensure the accuracy of this information as of the date of publication. The college reserves the right to modify, change, add, or delete content.

HISTORICAL COURSE OUTLINES

Students use course outlines to support their learning. Students are responsible for retaining course outlines for future use in applications for transfer of credit to other educational institutions.