



School of Energy

Program: Computer Information Systems Administration

COURSE OUTLINE

Course Number:	CISA 1330			
Course Title:	Windows Server Essentials			
School:	School of Energy			
Program:	Computer Information Systems Administration			
Course Credits:	Five (5)			
Total Hours:	75			
Total Weeks:	15			
Total/Average Hours/Week:	5			
Delivery Type (hrs/wk):	Lecture: Varies	Labs: Varies		
Prerequisites:	Applicants should have a keen interest in computers, exposure to home networking, and strong communication and problem-solving skills.			
Prerequisite for:	CISA 2330			

Course Description:

This course introduces students to installing, configuring, managing, and supporting an Active Directory network infrastructure using the Microsoft server platform. This course includes topics such as: Installation, Configuration, and Management of Windows Servers, DHCP, DNS, VPN's, Domain Controllers, HyperV, Sites and Services, Replication and other tasks required to manage a large enterprise environment.

Course Learning Outcomes/Competencies:

Upon successful completion of this course the student will be able to:

- Install and configure servers and domain controllers
- Configure Windows server licensing and activation
- Manage Windows servers remotely
- Configure Windows clients to securely connect to Windows servers
- Configure hard drives and storage
- Configure SMB shares in Windows server
- Configure basic and advanced NTFS and share permissions
- Install and configure HyperV
- Configure and manage HyperV Storage and networking
- Install and configure images (guests) using HyperV
- Install and configure DHCP, DNS, and implement an IP Addressing strategy
- Configure Virtual Private Networking and Remote Access
- Install and configure forests, domains, and child domains
- Create, manage, and maintain Active Directory
- Create and manage Active Directory users, computers, groups, organizational units (OUs), and many other Active Directory objects
- Configure global catalog servers and operations masters
- Configure service authentication and account policies
- Create and configure password policies, account lockout policies, and Kerberos authentication policies
- Monitor, manage and recover Windows Servers and AD DS
- Configure and manage Active Directory in a complex enterprise environment using Active Directory sites and services
- Configure and manage Active Directory replication
- Use PowerShell to install, configure, and manage many of the components learned in this course

Day:	CISA 1330 Course Schedule Outcome/Material Covered (Note schedule is subject to change)
Day 1	<ul style="list-style-type: none"> Course Introduction & Overview, Module 1: Introducing Windows Server
Day 2	<ul style="list-style-type: none"> Module 2: Windows Server Installation and Initial Configuration
Day 3	<ul style="list-style-type: none"> Module 3: Configuring drives and storage for Windows Server
Day 4	<ul style="list-style-type: none"> Module 4: Configuring file permissions, sharing, and auditing
Day 5	<ul style="list-style-type: none"> Module 5: Hyper-V Overview
Day 6	<ul style="list-style-type: none"> Module 6: Implementing and Managing DHCP in Windows Sever
Day 7	<ul style="list-style-type: none"> Module 7: Implementing and managing DNS in Windows Server
Day 8	<ul style="list-style-type: none"> Module 8: Implementing VPN in Windows Server
Day 9	<ul style="list-style-type: none"> Module 9: Deploying AD DS in Windows Server
Day 10	<ul style="list-style-type: none"> Mini Skills, Catch up on Labs
Oct 17-21, 2025	Midterm Exam Ch 1-7, Fri Oct 17th, 2025 at 12pm
Day 11	<ul style="list-style-type: none"> Module 10: Managing AD DS Objects
Day 12	<ul style="list-style-type: none"> Module 11: Advanced AD DS Deployments
Day 13	<ul style="list-style-type: none"> Module 12: AD DS Sites and Replication
Day 14	<ul style="list-style-type: none"> Module 13: Securing AD DS (time permitting)
Day 15	<ul style="list-style-type: none"> Module 14: Monitoring, Managing, and Recovering AD DS (time permitting)
Day 16	<ul style="list-style-type: none"> Mini Skills, Catch up on Labs
Day 17	<ul style="list-style-type: none"> Skills Integration Assignment
Day 18	<ul style="list-style-type: none"> Skills Integration Assignment
Day 19	<ul style="list-style-type: none"> Skills Integration Assignment
Day 20	<ul style="list-style-type: none"> Skills Integration Assignment
Dec 4-11, 2025	Final Exam Ch 1-14 – Thurs Dec 11th, 2025 at 10am

Evaluation Criteria:*

Criteria**	%	Comments
Lab component - Assignments/labs/lab quizzes etc	25	A passing grade of 50% in both the theory and the lab component is required to satisfactorily complete this course.**
Lab component – Mini Skills/Skills Integration Assessment(s)	20	
Theory component - Quizzes	15	
Theory component - Midterm Assessment	20	
Theory component - Final Assessment	20	
TOTAL	100%	

*All items are compulsory and must be completed to pass this course

**Students are expected to pass both the theory component and the lab component of the course with a minimum of 50% each. Students with an overall grade of 50% or greater in one component, but with below 50% in the other component, will receive a failure grade of “U” (unsuccessful).

** **Regular attendance** in lectures and labs (either on-line or in-person) as well as active participation and meaningful discussion where appropriate, is seen as integral to student success and will be monitored. Students are expected to be punctual and attend class for the full duration. Late arrivals or early departures may be considered as absences. Please see the CISA Orientation Manual for details.

Note – anyone feeling ill or having symptoms of an illness should NOT attend in-person. Please send me an email to let me know you will not be attending in-person.

If you stay home, and you are feeling up to it, you can still participate in the day’s activities by going to the Learning Hub, Content, and choosing today’s Lesson. There, you will find a copy of the items we will use in class today, PPTs, labs, etc. Note, this will not be counted as an absence so long as you complete the activities and submit them on time and so long as a pattern doesn’t develop.

There is no requirement to provide a doctor’s note unless you are going to miss a midterm, final, or skills assessment or unless your instructor has asked you for one.

Each day you should do a self-assessment to determine if you should attend on campus. If you don’t feel well or you have any symptoms of illness STAY AT HOME PLEASE.

Learning Resources:**1. Required:**

1. Waypoint Windows Server Essentials, eBook
2. Xtreme Labs Online – Server 2022
 - a. Purchasing these items will be discussed on the first day of class.
 - b. You will need a credit card to purchase the items above.
3. External SSD - In order to setup your own Server, practice with adding enterprise technologies, etc, you will need your own SSD.
 - a. Portable external SSD - 1TB storage with **USB TypeC** connector.
 - i. With a USB typeC connector you will have superfast data transfer speeds and 1TB storage should be enough to use one SSD for multiple courses. However, be sure to check with your other instructors in case they have different SSD requirements.
 - b. The following SSDs were found to be very fast in our labs last yr (2024):
 - i. SanDisk 1TB Extreme Portable SSD (up to 1000MB/per second)
 - ii. Samsung T7 1TB USB 3.2 Gen 2 External Solid State Drive (up to 1000MB/per second)
 - iii. Samsung T9 1TB USB 3.2 Gen 2x2 (20Gbps) External Solid State Drive (up to 2000MB/per second) – This one is the fastest at double the speed of the two above.

Note – if you are sharing an SSD between courses you will need to setup a separate partition where you can store the HyperV images that we will use. Be sure your other course instructor knows this if you are sharing an SSD between courses. Keep a min of 250GB on the SSD for our course. Below are some USB standards for your review so you can see the difference in speeds.

USB 10Gbps	USB 3.2 Gen 1x2 (USB 3.2, SuperSpeed+)	10Gbps	USB C
USB 20Gbps	USB 3.2 Gen 2x2 (USB 3.2, SuperSpeed+)	20Gbps	USB C
USB 40Gbps	USB4	40Gbps	USB C
USB 80Gbps	USB4 Version 2	80Gbps+	USB C

Note - In this course, students may be required to create/use an on-line account to access software. During the account creation process your name and other identifying information may be recorded and stored outside of Canada. If you choose not to create an account, please see the instructor to make alternate arrangements.

* <https://www.onlogic.com/blog/usb-type-c-and-usb-3-1-explained/>

Instructor information:

Tracy Willcock

Office Location: SE1 - 135

Office Hrs: By Appointment

Office Phone: 604-456-1163

E-mail Address: tracy_willcock@bcit.ca**Information for Students:**

Ethics: BCIT assumes that all students attending the Institute will follow a high standard of ethics. Incidents of cheating or plagiarism or piracy of copyrighted materials will result in a grade of zero and/or expulsion from the course/program (and BCIT), for all parties involved.

Assignments: Late assignments, lab reports or projects will **not** be accepted for marking. Assignments must be done on an individual basis unless otherwise specified by the instructor.

Makeup Tests, Exams or Quizzes: There will be **no** makeup tests, exams or quizzes. If you miss a test, exam or quiz, you will receive zero marks. Exceptions may be made for **documented** medical reasons or extenuating circumstances. In such a case, it is the responsibility of the student to inform the instructor **immediately**.

Attempts: Students must successfully complete a course within a maximum of three attempts at the course. Students with two attempts in a single course will be allowed to repeat the course only upon special written permission from the Associate Dean. Students who have not successfully completed a course within three attempts will not be eligible to graduate from the appropriate program.

Course Outline Changes: The material or schedule specified in this course outline may be changed by the instructor. If changes are required, they will be announced in class.

Verification

I verify that the content of this course outline is current.

Tracy Willcock
Authoring Instructor

Aug 27, 2025
Date

I verify that this course outline has been reviewed.

Patrick Duffey
Program Head/Chief Instructor

Aug 27, 2025
Date

I verify that this course outline complies with BCIT policy.

Viktoriia Kovalova
Associate Dean

Aug 27, 2025
Date