Course Code: Title	CYB102: WINDOWS ADMINISTRATION & POWERSHELL SCRI
Program Number: Name	5911: CYBERSECURITY
Department:	PPP triOS
Academic Year:	2021-2022
Course Description:	This course covers the skills and knowledge necessary to install, configure, administer, and support Microsoft Windows. In addition, you will learn about the various tools for administering, configuring, and troubleshooting Windows, as well as how to deploy and upgrade to the latest version of Windows, configure disks, users, drivers, printers, network interfaces and security. This course also provides students with the knowledge and skills necessary to write and maintain PowerShell scripts for automating system administration tasks.
Total Credits:	4
Hours/Week:	4
Total Hours:	60
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**5911 - CYBERSECURITY** VLO 1 Develop and implement cyber security solutions to protect network systems and data. VLO 2 Plan and implement security assessment methodologies, vulnerability management strategies and2.incident response procedures to generate and communicate security analysis reports and recommendations to the proper level of the organization. VLO 3 Recommend processes and procedures for maintenance and deployment of cyber security solutions.
Essential Employability Skills (EES) addressed in this course:	EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 10 Manage the use of time and other resources to complete projects.
Course Evaluation:	Passing Grade: 50%, D A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Books and Required	MCA Modern Desktop Administrator Complete Study Guide: Exam MD-100 and Exam MD-101

SAULT COLLEGE | 443 NORTHERN AVENUE | SAULT STE. MARIE, ON P6B 4J3, CANADA | 705-759-2554

Resources:	ISBN: 978-1-119-60310-8	
Course Outcomes and Learning Objectives:	**Course Outcome 1**	**Learning Objectives for Course Outcome 1**
	Navigate the features and structure of the Windows 10 operating system for planning and maintenance purposes.	DEPLOY AND UPDATE OPERATING SYSTEMS 1.1 Plan and implement Windows 10 by using dynamic deployment. 1.2 Use Windows Autopilot to plan and implement Windows 10 1.3 Upgrade devices to Windows 10. 1.4 Manage Windows 10 updates. 1.5 Manage device authentication in a Windows 10 environment.
	Course Outcome 2	**Learning Objectives for Course Outcome 2**
	Manage the methods and procedures used to deploy and maintain Windows 10 in an enterprise environment	DEPLOY WINDOWS 10 2.1 Configure language packs, migrate user data, perform a clean installation, perform an in-place upgrade (using tools such as MDT, WDS, ADK, etc.), select the appropriate Windows edition; troubleshoot activation issues. 2.2 Configure Windows browsers (Microsoft Edge and Internet Explorer) including the mobility settings, sign-in options 2.3 Customize the Windows desktop. MAINTAIN WINDOWS 10 2.4 Manage the Windows 10 environment including troubleshooting the startup/boot process, recovering Windows 10 and general performance 2.5 Perform file recovery (including OneDrive) 2.6 Manage and configure Windows update options including: checking their availability; troubleshooting them; validating and testing them; selecting the appropriate servicing channel. 2.7 Configure and analyze event logs
	Course Outcome 3	**Learning Objectives for Course Outcome 3**
	Configure and support disks, filesystems, users, groups, devices, and user interface options using the appropriate tools and procedures	MANAGE DEVICES AND DATA 3.1 Manage devices in directories, manage local groups, manage local users. 3.2 Configure NTFS permissions as well as shared permissions. 3.3 Configure local registry; implement local policy; troubleshoot group policies on devices. 3.4 Configure user account control (UAC); configure Windows Defender Firewall; implement encryption.
	Course Outcome 4	**Learning Objectives for Course Outcome 4**
	Configure and support TCP/IP networking within the Windows 10 operating system in a variety of different network environments	CONFIGURE CONNECTIVITY 4.1 Configure client IP settings, configure mobile networking, configure VPN client; troubleshoot networking; configure Wi-Fi profiles. 4.2 Configure remote management including enabling PowerShell Remoting and remote desktop access.
	Course Outcome 5	**Learning Objectives for Course Outcome 5**

Configure and support security, access control, and group policy for Windows 10 clients in a workgroup and domain environment	**MANAGE POLICIES AND PROFILES** 5.1 Plan and implement co-management. 5.2 Implement conditional access and compliance policies for devices. 5.3 Configure device profiles. 5.4 Manage user profiles. **MANAGE AND PROTECT DEVICES** 5.5 Manage Windows Defender. 5.6 Manage Intune device enrollment and inventory. 5.7 Monitor devices in a Windows 10 environment
Course Outcome 6	**Learning Objectives for Course Outcome 6**
Optimize, update, and troubleshoot the Windows 10 operating system, apps, and data	**MANAGE APPS AND DATA** 6.1 Deploy, update, and troubleshoot applications in a Windows 10 environment. 6.2 Implement and troubleshoot Mobile Application Management (MAM).

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Final Exam	60%
Professional Performance	10%
Quizzes, Tests & Projects	30%

Date: June 30, 2022

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.