

System Administrator + Internship

PROGRAM OBJECTIVES

The System Administrator diploma program at Eastern is 42 weeks. It includes an 8-week internship. This program is designed for individuals who are seeking knowledge and certification in computer and network-related administration. Students will receive communications and support training as well as the opportunity to work on popular computer operating systems including Microsoft Windows 10 as well as a deep understanding of Security fundamentals. This program focuses on the skills that prepare graduates quickly and effectively for careers in configuring and supporting PCs and networks.

CERTIFICATIONS

Students who successfully complete this program will be eligible to write certification exams leading to the following designations: CompTIA A+ (2 vouchers), CompTIA IT Project+, CompTIA Network+, CompTIA Linux+, CompTIA Security+ and Microsoft Desktop Administrator Associate (MDAA): Windows 10 (2 Vouchers).

These certifications are comprised of seven (7) available certification vouchers for six (6) certification examinations. Students are provided with four (4) certification exam vouchers to write the certifications they wish to pursue.

CAREER OPPORTUNITIES

Graduates of our program will have the opportunity to start careers as a Project Manager, Windows Desktop Administrator, Windows Server Administrator, Active Directory Manager Administrator, Cisco Administrator, Linux Administrator, Cybersecurity Specialist, Cyber security Analyst, Network Support Specialist.

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PREREQUISITES

1. Student has Grade 12 or equivalent or meets criteria for Mature Student Status.
2. Mature students must be 19 years of age, pass a qualifying test, and provide a Letter of Intent OR resume that supports their skills and aptitudes to be successful in the program.
3. The approved qualifying test for this program is the Wonderlic test. A passing score for this program is 18.

GRADUATION REQUIREMENTS

Eastern diplomas will be granted only to students who successfully complete all courses in the program with a passing grade of 60% (or a grade of 'complete' where applicable). As well, students must meet the minimum Standards of Satisfactory Scholastic Progress as set out in our Student Handbook. For programs that include an internship, all internship hours must be completed and a final grade of 'Pass' must be achieved for the internship.

TECHNICAL REQUIREMENTS

For updated technical requirements of your program, please click here:

[Business, Healthcare, Law, and Supply Chain Programs](#)

EXAM PROCTORING

While studying online, there will be several courses that will require a final exam or assessment that is proctored to ensure academic integrity is maintained. Students will have two options:

Option 1 – students complete the exam from home with remote proctoring. Students will be recorded and observed during the exam using Proctorio remote exam proctoring. Students must write the exam on the computer that meets the minimum system requirements as outlined above.

Option 2 – student may come in-to any Eastern College campus and write the exam in person. If you would like to write the exam in person, you will need to schedule this time in advance with your instructor.

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HOW AI IS USED IN TECHNOLOGY PROGRAMS:

What is AI?

Artificial Intelligence (AI) is an evolving technology that attempts to simulate human intelligence using computer programs. At the heart of AI is **Machine Learning (ML)**, which correlates large amounts of data to learn the relationships between different data elements. AI and ML products can be used by both IT professionals and software developers to save time on certain tasks.

How do software developers leverage AI on the job?

Nearly all modern development tools now have AI-based auto-suggestion, code generation, and documentation abilities. Software developers can choose to autofill in certain lines of code, as well as generate the initial structure (called stub code) for a new program to give them a solid starting point for development. Additionally, software developers can leverage AI tools to add the necessary documentation to existing code to save time.

How do we approach AI in our programs?

While AI can be used to save time, all AI-generated content must be reviewed in depth by someone with content expertise to ensure that it provides the necessary functionality, and in a way that adheres to corporate standards, security, and software/ copyright licenses. Thus, you must first have a solid understanding of IT administration or software development to leverage AI effectively in those fields.

At Eastern, students do not learn how to create new AI technologies. Instead, we leverage AI to generate content throughout several courses in the program, but only where appropriate, and in ways that mimic the use of AI in the workplace. Additionally, all AI generated content is thoroughly reviewed before use to ensure functionality, security, copyright adherence, license compatibility, and quality.

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PROGRAM OVERVIEW		
Course	Hours	Weeks
Student Success Strategies	20	1
Career Management	20	1
PC Support	80	4
Windows Client Administration	120	6
Windows Server and Active Directory Administration	120	6
IT Service and Project Management	80	4
Network Administration	80	4
Linux Administration	120	6
Security Fundamentals	40	2
System Administrator Internship	160	8
TOTAL	1320	42

*Number of study break weeks will depend on student start date.

**Work terms/internships are scheduled for a minimum of 25 hours per week, but the total number of hours worked and the timing of hours scheduled are at the discretion of the employer/host to a maximum of 40 hours per week.

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COURSE DESCRIPTIONS

Student Success Strategies

This course stresses the importance of developing non-technical skills to enhance personal, academic and career success. This includes understanding learning styles and honing practical study skills, such as memory, reading, note- and test-taking techniques. Personal exercises will focus on teamwork, setting goals and maintaining a positive attitude. Techniques for managing change, stress, and conflict will also be explored.

Career Management

In this module, you will create and refine your résumé and LinkedIn Profile. You will write cover letters and learn the value of customizing cover letters to specific job postings. You will have the opportunity to apply this knowledge as you conduct a job search and write a cover letter tailored to an ideal job post. Through research, you will create a list of top employers and target current industry opportunities. You will learn about current methods for applying to job postings using technology. You will also gain an understanding of the job interview process, typical interview questions and possible responses, and expectations of both the interviewer and interviewee. In addition, you will engage in practical application of the interview process through role-play. Topics such as negotiating salary, self-management, and on-the-job success for placements and post-graduate employment will be also covered.

PC Support

This course introduces you to the essential operating system skills required of a PC support technician, and covers the concepts tested on the CompTIA A+ certification. More specifically, you will learn how to configure, troubleshoot, and maintain both computer hardware and the Windows family of desktop operating systems. Additionally, you will examine the basic configuration of Linux, macOS, and mobile operating systems.

Windows 10 Administration

This course introduces you to the skills and knowledge necessary to install, configure and support Microsoft Windows 10, and covers the concepts tested on the Microsoft Modern Desktop Administrator Associate (MDAA) certification exams. More specifically, you will learn how to deploy and upgrade to Windows 10, as well as configure storage, access, devices, network connectivity and security.

Windows Server and Active Directory Administration

This course provides you with an in-depth look at the different tasks necessary to administer, secure, and troubleshoot Windows Server 2019 systems. The focus is on server deployment and management, as well as data, storage, network service, virtualization, and container configuration. Additionally, you will cover Active Directory configuration and management.

IT Service and Project Management

You will learn business processes and communication, as well as time and project management skills vital for success in today's IT industry. Through examples, demonstrations, and activities, you will examine the strategies and techniques commonly used within the IT industry, with a focus on ITIL processes and project management. Moreover, you will cover the concepts tested on the CompTIA Project+ certification.

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Network Administration

In this course, you will examine the theory and concepts required to successfully administer and troubleshoot IP-based computer networks and network technologies. Moreover, you will cover the concepts tested on the CompTIA Network+ certification.

Linux Administration

Linux provides the foundation for many systems today, from embedded and mobile devices to supercomputers and the cloud. In this course, you will learn how to install, configure, and manage Linux systems and the network services that they run. Moreover, you will cover the concepts tested on the CompTIA Linux+ certification.

Security Fundamentals

This course covers the core concepts that provide for security within an enterprise environment. Focus will be placed on the common security tools and procedures that every IT professional must know when working with technology in an organization. Moreover, this course covers the concepts tested on the CompTIA Security+ certification.

Managing Infrastructure Services

Most job roles within organizations today require access to information provided by web, database, and email services. This course introduces you to the concepts and procedures required to install, manage, and support SQL database servers, as well as email and web services.

Server, Cloud, and Automation Technologies

In this course, you will learn how to deploy and manage servers, both on-premises and within a cloud environment. More specifically, you will learn how to provision servers, automate server deployment and configuration, as well as manage virtual machines and containerized applications using open source frameworks and technologies. Furthermore, you will cover the concepts tested on the CompTIA Server+ and Cloud+ certifications.

Advanced Network Technologies

In this course, you will learn the configuration and support of Cisco routers, switches, and services. Additionally, you will explore the design, configuration, and management of WLANs and other wireless technologies. Furthermore, you will be introduced to the concepts covered on the Cisco Certified Network Associate (CCNA) and Certified Wireless Network Administrator (CWNA) certification exams.

Cybersecurity

In this course, you will cover the procedures used to design, implement, and audit security within an enterprise environment, as well as detect, respond to, and investigate security breaches. Moreover, you will cover the concepts tested on the CompTIA Cybersecurity Analyst+, Pentest+, and CASP certification exams.

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