

Information Systems Specialist+

Program Objectives

The Information Systems Specialist+ program is designed for students wishing to develop specialized network implementation and support skills that meet a recognized level of technical proficiency and expertise with Microsoft desktop and server components. Students study architecture, planning, implementation, configuration and support of desktop server systems in Local Area and global Wide Area Network environments. They will develop practical skills through hands on training to design, plan, install, monitor and administer these systems. Graduates may successfully compete for positions such as Network Designer, Network Administrator, Technical Support, Network Engineer or Network Security Specialist. The Information Systems Specialist+ program helps students prepare for certification in the following areas: Computing Technology Industry Association (CompTIA) A+ and Network+; Microsoft Certified Solutions Associate (MCSA): Windows Server 2008; (MCSA): Windows Server 2012; and Microsoft Certified Solutions Expert (MCSE): Server Infrastructure.

Career Opportunities

Systems Specialists are able to gain employment in a number of positions with a multitude of employers. Some of the jobs available are: systems administrator, security administrator, network operator, systems architect, hardware installation technician and technical support analyst, software installation technician and technical support analyst, system support representative, and technical support supervisor.

Prerequisites

- Grade 12 or equivalent or mature student status
- Grade 10 minimum is required for mature student applicants

Graduation Requirements

A student must attain an overall average in each module of at least 70% in order to graduate and receive a diploma. A student must complete all requirements of Student Success Strategies as well as the Field Placement requirements for this program.

Program Overview

	Hours
Student Success Strategies	20
Software Lab: Computer Fundamentals	40
Software Lab: Software Fundamentals	40
Network+	80
A+	160
Security+	80
Windows 7 Configuration: 70-680	80
Windows Server 2008 Active Directory Configuration: 70-640	80
Windows Server 2008 Network Infrastructure Configuration: 70-642	80
Windows Server 2008 Administrator: 70-646	80
Upgrading Your Skills to Windows Server 2012: 70-417	80
Designing and Implementing a Server Infrastructure: 70-413	80
Implementing an Advanced Server Infrastructure: 70-414	80
Core Solutions of Microsoft Exchange Server 2013: 70-341	80
Introduction to CISCO Routers	80
UNIX/Linux	80
Career Planning Preparation Part I	20
Career Planning Preparation Part II	20
Field Placement	8 Weeks
TOTAL WEEKS	71

NOTE: In order to continuously improve our programs, Eastern College reserves the right to modify programs at any time. Program delivery order may vary depending on program start date. This diploma program may not be available at all campuses.

Information Systems Specialist+

Module Descriptions

Student Success Strategies

In this orientation module, emphasis is placed on thinking about achieving success from Day One. This module 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, decision making and problem solving skills, setting SMART goals and maintaining a positive attitude; techniques for managing change, stress and conflict will also be explored.

Software Lab: Computer Fundamentals

Through a combination of theory and hands-on-practice, this module examines the role and use of the computer in today's workplace. Emphasis is placed on those computers outfitted with the Microsoft Windows operating system. Students will review basic computer concepts, Windows 7 usage, and complete hands-on training exercises in business-standard software applications, including Internet Explorer, Microsoft Outlook 2010, and Microsoft Word 2010. Keyboarding skills are also honed via daily keyboarding exercises and drills.

Software Lab: Software Fundamentals

This module consists of hands-on training in Microsoft Office 2010, and builds upon the skills introduced in Computer Fundamentals. Students gain practical experience using four popular applications of the Office Suite: Word, Excel, Access and PowerPoint. Students should finish the module confident in their understanding of each program's basics, and be able to apply learned skills in a professional environment.

Network+

This module serves as a broad introduction to the hardware and software components of networking technology, preparing the student for subsequent advanced courses in networking management and administration using Windows Server 2008 and 2012 and UNIX/Linux operating systems. Further, this module will prepare the student to attain the CompTIA Network + certification. The student will gain a broad understanding of routers, hubs, switches, WAN infrastructures, VoIP and the use of IPS/IDS devices. Additionally, a solid foundation will be provided on networking software running in various operating systems, along with a detailed examination of networking protocols, particularly TCP/IP.

A+

Through lectures, discussions, demonstrations, textbook exercises, and classroom labs, this module teaches students the skills and knowledge necessary to perform tasks such as installing , building, repairing, configuring, troubleshooting, optimizing, diagnosing, and preventive maintenance in the context of the field service or enterprise computing environment; these skills are also necessary for those who hold a position characterized by a high-level of in-person customer interaction. This module also prepares students for the CompTIA A+ certification exams. Students who pass the CompTIA 220-801 plus the CompTIA 220-802 will be CompTIA A+ certified, proving their competence in the fundamentals of computer technology, networking and security. A+ certified technicians have also proven they possess customer relations skills now required of all entry level IT professionals.

Security+

The CompTIA Security+ exam is a vendor-neutral exam that covers a wide range of security concepts and topics that will supplement any

NOTE: In order to continuously improve our programs, Eastern College reserves the right to modify programs at any time. Program delivery order may vary depending on program start date. This diploma program may not be available at all campuses.

Information Systems Specialist+

network program. Security is discussed on all levels including physical security, network security, perimeter security, application security and operating system security. Topics include access control, authentication, encryption, common forms of attacks, intrusion detection, risk identification and forensics.

Windows 7 Configuration: 70-680

A course that covers Windows 7 is the first step in pursuing Microsoft's premiere certifications. In addition, skills learned in the course will give you a foundation in Windows Server. Topics include installing and upgrading Windows 7, configuring Windows security features, configuring network connectivity, configuring Windows XP and Vista applications, maintaining and optimizing systems that run Windows 7 and configuring for mobile computing and troubleshooting common Windows problems.

Windows Server 2008 Active Directory Configuration: 70-640

Active Directory is Microsoft's directory service used on Microsoft Windows networks that allows administrators to manage network resources (including users, computers and groups) and services. It is also essential for authentication and authorization, which is essential to network and data security. This course covers installing Active Directory, defining subnets and sites, managing operations masters and global catalogs, managing users, computers and groups, implementing group policies and implementing Active Directory Certificate Services.

Windows Server 2008 Network Infrastructure Configuration: 70-642

The Windows Server 2008 Network Infrastructure focuses on those network applications and services that make a Microsoft Windows network function. Topics covered including configuring IP Addressing (IPv4 and IPv6), configuring routing and IPSec,

implementing Dynamic Host Configuration Protocol (DHCP), Name Resolution with Domain Name System (DNS), configuring file and print services, configuring network access and monitoring and managing the network infrastructure.

Windows Server 2008 Administrator: 70-646

To complete the Microsoft Certified Solutions Associate (MCSA): Windows Server 2008, you must complete the 70-646 exam. By expanding on earlier courses/exam, the Server Administrator focusing on planning for server deployment, server management and planning application and data provisioning and business continuity and high availability. In addition, it focuses on monitoring and maintaining servers.

Upgrading Your Skills to Windows Server 2012: 70-417

70-417 is an upgrade exam that is a composite of three standalone exams: 70-410, 70-411 and 70-412. This exam validates skills related to the core technology features and functionality of Windows Server 2012 from the existing knowledge base of a Microsoft Certified Solutions Associate on Windows Server 2008. This module will provide training in installation, configuration and administration of Windows Server 2012 including deployment and management of servers and backup and disaster recovery.

Designing and Implementing a Server Infrastructure: 70-413

This module trains to plan, configure and implement the Windows Server 2012 services. Topics covered include planning and deploying a server infrastructure, designing and implementing network infrastructure services and access services, designing and implementing an Active Directory infrastructure both logical and physical.

NOTE: In order to continuously improve our programs, Eastern College reserves the right to modify programs at any time. Program delivery order may vary depending on program start date. This diploma program may not be available at all campuses.

Information Systems Specialist+

Implementing an Advanced Server Infrastructure: 70-414

This module continues to focus on Windows Server 2012. Topics covered include managing and maintaining server infrastructure, planning and implementing a highly available enterprise infrastructure and a server virtualization infrastructure and designing and implementing identity and access solutions.

Core Solutions of Microsoft Exchange Server 2013: 70-341

Microsoft Exchange Server 2013 is a network service essential to many corporations. Topics covered in this course include planning, installing, configuring and managing transport, the mailbox role and client access in addition to designing and managing an Exchange infrastructure.

Introduction to CISCO Routers

This module provides a comprehensive introduction to deploying Cisco devices in an internetworked environment. Through hands-on exercises, students will gain the fundamental knowledge and skills needed to install, configure and troubleshoot Cisco routers.

UNIX/Linux

Students will learn the history and development of the UNIX operating system as well as its implementation in recent years in the Linux family of operating systems. They will also learn to install, administer and troubleshoot workstations, servers and networks running these operating systems. Students will build and manage UNIX or Linux servers to understand one of the most reliable, stable, and secure server platforms for E-Commerce and web services. Additionally, the most significant software implementations used to provide these services will be studied, including Samba and Suse. This course will provide students with the foundation to administer large mainframe systems as well as

enterprise-level servers, representing many of the major platforms on the internet.

Career Planning and Preparation Part I

This module introduces tools for planning and preparing for a successful job search, so that students can maintain a career-focused approach throughout their education program. Students will learn about the "Hidden" Job Market and ways to access it in their upcoming job search, how to research opportunities and network for industry contacts, and use appropriate etiquette when communicating with prospective employers. Students will identify their personal skills, values and preferences for the workplace, begin preparation of a professional resume and references, and organize proof documents for their career portfolio. Class discussions on various self-management topics introduced in Student Success Strategies will round out this module, which is a pre-requisite for Career Planning and Preparation - Part II.

Career Planning and Preparation Part II

This module continues to build on the concepts and skills introduced in Career Planning and Preparation - Part I. Students will learn how to conduct an effective job search and identify various methods of applying for work with today's technology. Students will create a personal list of "Top Employers" and target current industry opportunities, while finalizing their professional resume, portfolio and career correspondence. Students will learn to identify the different types and forms of interviews, practice responding to typical questions, and practice follow-up, evaluation and negotiation techniques they can use to ensure success. Self-management topics from Career Planning and Preparation - Part I will be reviewed, with a focus towards on-the-job success in both learner placements and post-graduate employment.

NOTE: In order to continuously improve our programs, Eastern College reserves the right to modify programs at any time. Program delivery order may vary depending on program start date. This diploma program may not be available at all campuses.