

## **Program Objectives**

The Information Systems Administrator program is designed for students wishing to pursue a career administering and supporting users on networked systems. Network consulting, implementation, and operating services are rapidly growing areas in the information technology industry. The Information Systems Administrator program will help students develop the network administration and user support skills required to implement and support local and wide area networks. Industry and vendor certification have become a benchmark used by employers in the hiring process and the Information System Administrator program helps the students prepare for certification in the following areas: Computing Technology Industry Association (CompTIA) A+ Network+, Microsoft Certified Solutions Associate (MCSA): Windows Server 2008 and (MCSA): Windows Server 2012.

### **Career Opportunities**

System Administrators are able to gain employment in a number of positions with a multitude of employers. Some of the jobs available are: client support representative, computer help desk representative, network administrator, and help-desk troubleshooter.

### **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 each module in order to graduate and receive a diploma. A student must complete all requirements of the Student Success Strategies and Career Planning and

Preparation modules 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
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 Server	
Administrator: 70-646	80
Upgrading Your Skills to Windows Serve	er
2012: 70-417	80
Core Solutions of Microsoft SharePoint	
Server 2013 Configuration: 70-331	80
Career Planning Preparation Part I	20
Career Planning Preparation Part II	20
Field Placement	8 Weeks

#### TOTAL WEEKS

## **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.

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#### **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 learned 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.

#### 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 including 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, configuring Windows for mobile computers, and troubleshooting common Windows problems.

# Windows Server 2008 Active Directory Configuration: 70-640

Active Directory is Microsoft's directory service used on Microsoft Window 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

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

# Core Solutions of SharePoint Server 2013: 70-331

This module introduces the skills and knowledge necessary to install and configure SharePoint Server 2013. Students will learn how to install and configure SharePoint farms, create and configure web applications and site collections, design a SharePoint topology, plan security and maintain a core SharePoint environment.

### **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 selfmanagement 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-

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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.

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