Information Systems: Part 1

Hardware and Software Essentials
Course Code: 9103 (20S)

This course covers the fundamentals of computer hardware and software, and the responsibilities of an IT professional. It is designed for students who want to pursue careers in ICT and to gain practical knowledge of how a computer works. Students who complete this course will be able to describe the internal components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software. Students will also be able to connect to the Internet and share resources in a networked environment. Additional topics include mobile devices such as tablets and smartphones and client side virtualization. This course contains the learning outcomes found in IT Essentials 5.1) from the Cisco Networking Academy. This curriculum helps students prepare for the CompTIA A+ certification exams 220-901 and 220-902

Operating Systems
Course Code: 9104 (30S)

This course covers the installation, deployment, and troubleshooting of the current Microsoft Desktop Operating system. The hands-on approach will prepare students to face the real life challenges of a Microsoft desktop technician and assist students in preparing for the Microsoft Technology Associate (MTA) certification exams. This course includes the learning outcomes from the Microsoft Technology Associate Certification Exam Review Kit: 98-349 Windows Operating System Fundamentals: Course 10753

Advanced Operating Systems
Course Code: 9107 (40S)

Students will learn to install, deploy, and troubleshoot Linux as a desktop operating system.

Cyber Security Essentials
Course Code: 9106 (30S)

The focus of this course is on learning the fundamentals of cyber security, focusing on both theory and practice. Students will learn to secure devices, operating systems, networks, including routers and switches, and their associated software.

Information Systems: Part 2

Networking Technologies
Course Code: 9105 (30S)

The focus of this course is on learning the fundamentals of networking. Students will learn both the practical and conceptual skills that build the foundation for understanding basic networking.

Advanced Networking Technologies
Course Code: 9108 (40S)

This course is a continuation of 9105 Networking Technologies 30S. Students will: • continue to examine the OSI and TCP/IP layers in detail to understand their functions and services • understand the various network devices and network addressing schemes • discover the types of media used to carry data across the network By the end of this course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. This

course includes the specific outcomes from the second half of Cisco Level 1 Introduction to Networks..

Server Administration
Course Code: 9109 (40S)

This course gives students practical experience with Microsoft's server operating system and covers users and permissions, security, and server services such as DNS, DHCP, and Active Directory. Students will develop the knowledge needed to manage servers on small to large networks. The hands-on approach will prepare students to face the real life challenges of a Microsoft professional and assist students in preparing for the MTA certification exams. This course includes the specific outcomes from Microsoft Technology Associate Certification Exam Review Kit: 98-365 Windows Server Fundamentals.

Applied Networking and Cyber Security
Course Code: 9111 (40S)

Students will synthesize and apply knowledge and skills acquired in the previous courses to initiate, complete and document each of the steps involved in the design, installation, configuration, management, securing and troubleshooting of devices, operating systems and applications in an office environment.