

INFORMATION TECHNOLOGY (IT) • NETWORK SPECIALIST

Program Number 10-150-2 Associate Degree in Applied Science • Four Terms

ABOUT THE PROGRAM

Computers networked together sharing data and resources are powerfully amazing! Today, businesses of all sizes are networking their computers to maximize efficiency and productivity. If creating an overall computer network strategy, having the ability to analyze ideas/processes, installing hardware/software, and troubleshooting problems are skills you would like to put to use in a career, becoming a network specialist is your ticket to success.

PROGRAM OUTCOMES

- · Implement computer networks.
- Implement client systems.
- · Implement server operating systems.
- Implement network security components.
- · Develop technical documentation.
- Troubleshoot network systems.

ADMISSIONS STEPS

- Work with Admissions Specialist to:
- Submit application and \$30 fee.
- Complete an assessment for placement (Accuplacer or ACT).
- Submit official transcripts (high school and other colleges).
- Meet with program advisor/counselor to discuss program details.

APPROXIMATE COSTS

- \$132 per credit (resident)
- \$198 per credit (out-of-state resident)
- Other fees vary by program (books, supplies, materials, tools, uniforms, health-related exams, etc.) Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

PLACEMENT SCORES

Accuplacer/ACT scores will be used to develop your educational plan. Contact your program advisor/counselor for details.

SPECIAL NOTE

Students are required to have one USB 80 gig hard drive or greater.

CAREER & EDUCATION ADVANCEMENT OPPORTUNITIES

LTC credits transfer to over 30 universities. For more information visit gotoltc.edu/future-students/transfer.

CONTACT

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Catalog No.	Class Title	Credit(s
10154104 10150114 10154122 10801195	Term 1 Introduction to IT Networking I PC Support 1 Written Communication OR 10801136 English Composition 1 College Mathematics	3 3 3 16
10150125 10150173 10150176 10154175 10801196 10809172	Term 2 Linux Server Administration 1 Networking 2 PC Support 2 Oral/Interpersonal Communication Introduction to Diversity Studies OR 10806112 Principles of Sustainability	2 3 3 3 3 3
10150169 10150163 10150174 10150129 10154127 10809196 10809195	Term 3 Network Design & Documentation Networking 3 Server Administration 2 Virtualization Data Assurance Introduction to Sociology Economics	3 3 3 3 3 3 3
10150165 10150175 10150178 10150179 10154105 10809198	Term 4 Networking 4 Server Administration 3 Systems Integration Network Security IT-Career and Professional Developm Introduction to Psychology	nent 2

TOTAL 67





COLLEGE MATHEMATICS...is designed to review and develop fundamental concepts of mathematics pertinent to the areas of: 1) arithmetic and algebra; 2) geometry and trigonometry; and 3) probability and statistics. Special emphasis is placed on problem solving, critical thinking and logical reasoning, making connections, and using calculators. PREREQUISITE: 10834109 Pre-Algebra or equivalent

DATA ASSURANCE...provides the learner with a fundamental understanding of computer security principles and implementation; technologies used and principles involved in creating a secure computer environment; authentication; types of attacks and malicious code; e-mail, Web applications, remote access, and file and print services; intrusion detection systems, firewalls, and physical security concepts. The student will have a variety of hands-on and case project assignments that reinforce the concepts read in each chapter.

ECONOMICS...provides the participant with an overview of how a market-oriented economic system operates, and it surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems. growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

INTRODUCTION TO IT...introduces student to IT field to basic concepts and terminology of a computer system hardware and software, Operating Systems (including Mac OS), and Networks; applied skills include: managing computer data files; protecting against computer viruses; creating simple web pages; producing electronic word documents, spreadsheets and presentations; examining techniques of systems analysis and design, programming languages and database systems. Students introduced to the beginning concepts of a creating a portfolio.

INTRODUCTION TO PSYCHOLOGY...introduces students to a survey of the multiple aspects of human behavior. It involves a survey of the theoretical foundations of human functioning in such areas as learning, motivation, emotions, personality, deviance and pathology, physiological factors, and social influences. It directs the student to an insightful understanding of the complexities of human relationships in personal, social, and vocational settings. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

INTRODUCTION TO DIVERSITY STUDIES...introduces learners to the study of diversity from a local to a global environment using a holistic, interdisciplinary approach. Encourages self-exploration and prepares the learner to work in a diverse environment. In addition to an analysis of majority/minority relations in a multicultural context, the primary topics of race, ethnicity, age, gender, class, sexual orientation, disability, religion are explored. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

INTRODUCTION TO SOCIOLOGY...introduces students to the basic concepts of sociology: culture, socialization, social stratification, multi-culturalism, and the five institutions, including family, government, economics, religion, and education. Other topics include demography, deviance, technology, environment, social issues, social change, social organization, and workplace issues. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

IT-CAREER AND PROFESSIONAL DEVELOPMENT...introduces students to job seeking skills and work environment communications skills. Written and oral communication skills needed in the work place will be emphasized. Students will build a resume, create a cover letter and follow up letters. Participate in job-seeking skills, which include research of a particular job and company and participating in a mock interview. Preparing a portfolio that proves competency in all program outcomes will be required. Course should be taken in last semester of course work.

LINUX...is a hands-on course designed to provide the learner with the skills to install the Linux operating system, use its command-line and graphical user interfaces, manage system resources, and create scripts. The course will also introduce the learner to Linux system administration including the installation and administration of users, files, software, networking, and Internet and intranet services.

NETWORK DESIGN AND DOCUMENTATION...is a lecture/hands-on course designed to introduce students to network design and documentation fundamentals. Topics include: needs analysis, hardware needs and analysis, network layout and design, and documenting a network. PREREQUISITE: 10150176 Networking 2

NETWORK SECURITY...introduces the student to creating/maintaining web pages, a web server, and an FTP server; working with e-mail; and navigating the Internet. PREREQUISITE: 10150163 Networking 3

NETWORKING 1...is a lecture/hands-on course designed to introduce students to network fundamentals. Topics covered include: OSI Reference Model; LAN and WAN topologies; cabling systems; access methods; protocols; Internet working devices (e.g. hubs, bridges, routers, switches, etc.); and basic network design.

NETWORKING 2...provides the students with networking terminology, protocols, network standards, LAN's, WAN's, TCP/IP addressing, and routing. PREREQUISITE: 10150114 Networking 1

NETWORKING 3...introduces the student to switching technology, hardware and software firewalls, and virtual private networks (VPN). PREREQUISITE: 10150176 Networking 2

NETWORKING 4...is a hands-on course designed to introduce IT students to the terms and definitions of Analog phone systems and Voice over IP (VoIP) networks. The student will be configuring and maintaining an IP Telephony system, provisioning phones, configuring call features, and establishing voicemail. Cisco Call Manager, Call Manager Express, and Cisco VoIP phones are used to configure and build a converged IP telephony infrastructure. PREREQUISITE: 10150136 Networking 3

ORAL/INTERPERSONAL COMMUNICATION...provides students with the skills to develop speaking, verbal and nonverbal communication, and listening skills through individual speeches, group activities, and other projects. COREQUISITE: 10838105 Intro Reading and Study Skills or equivalent

PC SUPPORT 1...is the first course of the two-course A+ series that helps those seeking to become entry-level IT professionals by providing skills and knowledge necessary to perform the following tasks on personal computer hardware and operating systems: installation, PC building, system upgrades, repair, system configuration, troubleshooting, problem diagnosis, and preventative maintenance. The course covers the objectives of the CompTIA A+ exams but is not designed nor intended to be a "test prep" course. Additional resources as well as work experience are required in order to pass the exams.

PC SUPPORT 2...is the second course of the two-course A+ series that helps those seeking to become entry-level IT professionals by providing skills and knowledge necessary to perform the following tasks on personal computer hardware and operating systems: installation, PC building, system upgrades, repair, system configuration, troubleshooting, problem diagnosis, and preventative maintenance. The course covers the objectives of the CompTIA A+ exams but is not designed nor intended to be a "test prep" course. Additional resources as well as work experience are required in order to pass the exams. PREREQUISITE: 10154122 PC Support 1 or CONDITION: CompTIA A+ Essentials Certification

SERVER ADMINISTRATION 1...is a hands-on course designed to introduce the learner to the installation and configuration of Windows Server servers. The student will learn how to install and configure servers, configure server roles and features, configure Hyper-V, deploy and configure core network services, install and administer Active Directory (AD), and create and manage Group Policy. PREREQUISITE: 10154104 Intro to IT

SERVER ADMINISTRATION 2...is a hands-on course designed to introduce the leaner to administration of Windows Server servers. The student will learn how to deploy, manage, and maintain servers; configure file and print services; configure network services and access; configure a network policy server infrastructure; configure and manage Active Directory; and configure and manage Group Policy. PREREQUISITE: 10150173 Server Administration 1

SERVER ADMINISTRATION 3...will teach the student to implement, configure, and manage advanced Window Server 2012 services including high availability, file and storage solutions, business continuity and disaster recovery, network services, active directory infrastructure, and identify and access solutions. The course will align with Microsoft's 70-412 certification exam objectives but should not be considered a test-prep course. PREREQUISITE: 10150174 Server Administration 2

SYSTEMS INTEGRATION...is a projects-based, hands-on course designed to expand the student's knowledge in student self-directed areas as well as provide the opportunity for the student to apply what they have learned in their other program courses. Server virtualization and VoIP phone systems, including ring/hunt groups, paging, intercom, call routing, time conditions, interactive voice response, trunks, and voicemail are also covered in this course. PREREQUISITE: 10150163 Networking 3

VIRTUALIZATION...is a hands-on course designed to introduce the learner to the skills needed to install, configure, and manage a highly available and scalable virtual infrastructure. Objectives include: create, configure, migrate, manage, and monitor virtual machines and virtual appliances; manage user access to the virtual infrastructure; and configure and manage virtual network and storage systems. PREREQUISITE: 10154120 Computer Concepts

WRITTEN COMMUNICATION...teaches the writing process, which includes prewriting, drafting, revising, and editing. Through a variety of writing assignments, the student will analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Keyboarding skills are required for this course. It also develops critical reading and thinking skills through the analysis of a variety of written documents. PREREQUISITE: 10831103 Intro to College Wrtg equivalent and COREQUISITE: 10838105 Intro Rdg & Study Skills or equivalent