

# **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.

#### CAREER AND EDUCATION ADVANCEMENT OPPORTUNITIES

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

## ADMISSION AND PROGRAM ENROLLMENT STEPS

- Submit online application.
- Submit transcripts (high school & other colleges). NOTE: Official transcripts required for acceptance of transfer credits; Financial Aid may require.
- Complete the online Student Success Questionnaire.
- Schedule a Program Advising Session with your assigned advisor to plan your first semester schedule, review your entire plan of study, discuss the results of the Student Success Questionnaire.

## **APPROXIMATE COSTS**

• \$136.50 per credit tuition (WI resident) plus \$8.10 per credit student activity fee. \$10 per credit online or hybrid fee. Material fee varies depending on course. Other fees vary by program. Visit gotoltc.edu/financial-aid/tuition-and-fees for details.

#### **FINANCIAL AID**

This program is eligible for financial aid. Visit gotoltc.edu/Financial-Aid or talk with your Career Coach about how to apply for aid.

## **SPECIAL NOTE**

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

## CONTACT

LTC Career Coach 920.693.1162 · CareerCoach@gotoltc.edu

Catalog No. Class Title		Credit(s)
	Term 1	
10154104	Intro to IT	3
10150114	Networking I	3
10154122	PC Support	3
10801195	Written Communication	3
10804133	Math & Logic	3
	-	15

#### Term 2

10150173	Server Administration 1	3
10150176	Networking 2	3
10154124	Information Security Principles	3
10801196	Oral/Interpersonal Communication OR	3
	10801198 Speech	
10809196	Introduction to Sociology OR 10809122	3
	Introduction to American Government OR	
	10809166 Introduction to Ethics	
		15

## Term 3

Network Design & Documentation	2
Networking 3	3
Server Administration 2	3
Virtualization	2
Introduction to Psychology	3
Linux	2
	15
	Networking 3 Server Administration 2 Virtualization Introduction to Psychology

#### Term 4

10150165	Networking 4	3
10150164	Mobile Devices	3
10150175	Server Administration 3	3
10150179	Network Security	3
10150181	IT Networking Capstone	3
		15

**TOTAL 60** 

Curriculum and Program Acceptance requirements are subject to change. Program start dates vary; check with your advisor for details. The tuition and fees are approximate based on 2019-2020 rates and are subject to change prior to the start of the academic year.



2020-21



**INFORMATION SECURITY PRINCIPLES**...introduces the learner to Information Systems Security. Students will review and analyze the control and security concerns in the information systems environment; the security challenges created from the emergence of new technology and the changing internal and external environments; and the effect of legal, regulatory, and current security technology on policy development. Opportunity to earn TestOut Security Pro Certification. PREREQUISITE: 10154104 Intro to IT

**INTRO 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.

**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. PREREQUISITE: Reading placement assessment equivalent or COREQUISITE: 10838105 Intro to Reading and Study Skills

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 to Reading and Study Skills or Reading placement assessment equivalent

IT NETWORKING CAPSTONE...will integrate many of the technologies and concepts that the students have learned throughout the Network Specialist program. The integration projects will include such areas as network client and server administration, general networking concepts, IP addressing, network security, and switch and router configuration. COREQUISITES: 10150165 Networking 4 and 10150175 Server Administration 3 and PREREQUISITE: 10150129 Virtualization

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.

MATH & LOGIC...will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases. PREREQUISITE: 10834109 Pre-Algebra or Math placement assessment equivalent and COREQUISITE: 10838105 Intro Reading and Study Skills or Reading placement assessment equivalent

**MOBILE DEVICES**...are quickly becoming indispensable tools in the production environment. This course will introduce the learner to various industry mobile technologies used to promote better decision-making, reporting, and improve manufacturing performance. Some of the devices covered are tablets, smartphones, barcode printers and readers, and radio frequency identification (RFID) readers/writers.

**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 the various methodologies for defending a network. Learners will develop an in-depth theoretical understanding of network security principles as well as the tools and configurations available. The learner will emphasize on the practical application of skills needed to design, implement, and support a secure Cisco network. 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 enterprise-level IT technologies. The student will learn how to configure and manage Cisco wireless controllers, explore cloud computing technologies such as Google Apps and Microsoft Azure, learn about data center storage and backup solutions, advanced security technologies, and data center power and cooling. PREREQUISITE: 10150176 Networking 2

**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 Reading placement assessment equivalent

PC SUPPORT...prepares you to be able to install, manage, repair, and troubleshoot PC hardware and Windows, Linux, and Mac operating systems. You will learn how to set up a new computer, identify system requirements, install or upgrade operating systems, manage external devices, troubleshoot common computer problems, and connect to a small home network. Opportunity to earn TestOut PC Pro 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. Opportunity to earn TestOut Server Pro Certification. PREREQUISITE: 10150173 Server Administration 1

SERVER ADMINISTRATION 3...will introduce you to PowerShell and help you be effective with it in a production environment. PowerShell is both a scripting language and an administrative shell that lets you control and automate nearly every aspect of Windows. PREREQUISITE: 10150176 Networking 2

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: 10154104 Introduction to IT

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 or Writing placement assessment equivalent and COREQUISITE: 10838105 Intro to Rdg & Study Skills or Reading placement assessment equivalent

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