



# Information Technology (IT)— Network Specialist

Program No: 10-150-2

Associate Degree in Applied Science • Degree Completion Time: Four Terms  
In general, an academic year consists of two terms; however, degree completion time may vary based on student scheduling needs and class availability.

2012-2013

| Catalog No.   | Class Title   | Credit(s)    |
|---------------|---|--------------|
| <b>Term 1</b> |   |              |
| 10105124      | Portfolio Introduction  | 1.00         |
| 10150114      | Networking I  | 3.00         |
| 10154120      | Computer Concepts   | 3.00         |
| 10154122      | A+1   | 3.00         |
| 10801195      | Written Communication   | 3.00         |
| 10804133      | Mathematics and Logic   | 3.00         |
|               | <b>Total</b>  | <b>16.00</b> |
| <b>Term 2</b> |   |              |
| 10150127      | Linux 1   | 2.00         |
| 10150173      | Windows Server 1  | 3.00         |
| 10150176      | Networking 2  | 3.00         |
| 10154175      | A+2   | 3.00         |
| 10801196      | Oral/Interpersonal Communication  | 3.00         |
| 10809172      | Race, Ethnic & Diversity Studies OR 10806112 Principles of Sustainability | 3.00         |
|               | <b>Total</b>  | <b>17.00</b> |
| <b>Term 3</b> |   |              |
| 10105128      | Career Exploration  | 2.00         |
| 10150126      | Windows Server 2  | 2.00         |
| 10150163      | Networking 3  | 3.00         |
| 10150172      | Novell Open Enterprise Server   | 3.00         |
| 10150128      | Linux 2   | 2.00         |
| 10154127      | Data Assurance  | 2.00         |
| 10809195      | Economics   | 3.00         |
|               | <b>Total</b>  | <b>17.00</b> |
| <b>Term 4</b> |   |              |
| 10150165      | Networking 4  | 3.00         |
| 10150169      | Network Design and Documentation  | 2.00         |
| 10150178      | Network Applications and Installations                                    | 3.00         |
| 10150179      | Internet/Intranet Server Admin. and Installation                          | 2.00         |
| 10154101      | Portfolio Assessment-IT   | 1.00         |
| 10809196      | Introduction to Sociology   | 3.00         |
| 10809198      | Introduction to Psychology  | 3.00         |
|               | <b>Total</b>  | <b>17.00</b> |
|               | <b>Program Total</b>  | <b>67.00</b> |

**Note:** Program start dates vary; check with your counselor for details.

Curriculum and program acceptance requirements are subject to change.

## About the Career

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.

## Careers

- Network Administrator
- Network/PC Analyst
- Network Support Specialist
- Network Technician
- PC Support Specialist

## Admissions Steps

- Application
- Application Fee
- Entrance Assessment Scores
- Transcripts
- Program Advising Session
- Functional Abilities Statement of Understanding Form

## Program Outcomes

You'll learn to:

- Install and configure network operating systems.
- Learn and apply the OSI model.
- Create and manage VLANs and VPNs.
- Develop IP addressing schemes.
- Install and troubleshoot network components.
- Troubleshoot network software.
- Manage network security.
- Design and document networks.
- Troubleshoot and research problems independently.

## Approximate Costs

- \$126 per credit (resident)
- \$182 per credit (out-of-state resident)
- Other fees vary by program (books, supplies, materials, tools, uniforms, health-related exams, etc.)

## Special Note

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

## Functional Abilities

Functional abilities are the basic duties that a student must be able to perform with or without reasonable accommodations. At the postsecondary level, students must meet these requirements, and they cannot be modified.

## Placement Scores

Accuplacer/ACT scores will be used to develop your educational plan. Please contact your program counselor/advisor at 920-693-1109.

## Transfer agreements are available with the following institutions:

Capella University  
Cardinal Stritch University  
Concordia University  
Franklin University  
Herzing University  
Lakeland College

Marian College  
MSOE Rader School of Business  
Ottawa University  
Silver Lake College  
University of Phoenix  
Upper Iowa University

UW-Green Bay  
UW-Oshkosh  
UW-Stout

IMPORTANT: For more information on these agreements, visit [gotoltc.edu/transfer](http://gotoltc.edu/transfer).

### **10105124 Portfolio Introduction**

...prepares the student to develop a personal and professional portfolio, to identify self-awareness through various self-assessments and apply these results to the workplace and other environments, to write goal statements and understand their value, to develop an individual history of events and achievements, and to identify significant learning experiences throughout the student's life.

### **10105128 Career Exploration**

...prepares the student to develop a career plan, write a resume, create a cover letter, prepare for an interview, search for work on the Internet, adapt a resume for an electronic scan, and post a resume and cover letter on the Internet.

PREREQUISITE: 10105124 Portfolio Introduction

### **10105114 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.

### **10105126 Windows Server 2**

...is a lecture/hands-on course designed to introduce students to server scripting; print management; advanced network management; and troubleshooting tools.

PREREQUISITE: 10105173 Windows Server 1

### **10105127 Linux 1**

...provides the learner with the skills to plan for and install the Linux operating system; use Linux commands at a command line interface; use Linux graphical environments; employ Linux system standards; use the Linux system; configure the X window system; customize the shell environment; administer a Linux system; manage system resources; back up system data; and create scripts to automate processes.

PREREQUISITE: 10154120 Computer Concepts

### **10105128 Linux 2**

...expands the learners' ability to work in a Linux-based command line and GUI environment. Learners will develop advanced skills in file sharing, Internet, server configuration, security, writing shell scripts, and network administration tasks.

PREREQUISITE: 10105127 Linux 1

### **10105163 Networking 3**

...introduces the student to switching technology, hardware and software firewalls, and virtual private networks (VPN).

PREREQUISITE: 10105176 Networking 2

### **10105165 Networking 4**

...provides the student with the ability to work with current and emerging network technology.

PREREQUISITE: 10105176 Networking 2

### **10105169 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: 10105176 Networking 2

### **10105172 Novell Open Enterprise Server**

...is a lecture/hands-on course that provides the student with basic network administration skills. Topics covered include: network benefits, network administrator responsibilities, log-in security, file system security and design, print management, and user administration for Novell Hardware.

### **10105173 Windows Server 1**

...is a lecture/hands-on course designed to teach basic network administration. Topics covered include: network benefits, network administrator responsibilities, log-in security, file system security and design, print management, and user administration for Windows 2000 server.

PREREQUISITE: 10154120 Computer Concepts

### **10105176 Networking 2**

...provides the students with networking terminology, protocols, network standards, LAN's, WAN's, TCP/IP addressing, and routing.

PREREQUISITE: 10105114 Networking 1

### **10105178 Network Applications and Installations**

...introduces the student to installing software on a network, including installing network software, assigning correct security rights, and Cisco Call Manager Express.

PREREQUISITE: 10105176 Networking 2

### **10105179 Internet/Intranet Server Administration and Installation**

...introduces the student to creating/maintaining web pages, a web server, and an FTP server; working with e-mail; and navigating the Internet.

PREREQUISITE: 10105173 Windows Server 1 OR

10105172 Network Administration

### **10154101 Portfolio Assessment-IT**

...prepares the student to identify what they have learned throughout the IT program, write career goals, re-examine their resume, research and collect project samples of their achievements, and analyze their achievements within the college core abilities.

PREREQUISITE: 10105124 Portfolio Introduction and 10105128 Career Exploration

### **10154120 Computer Concepts**

...introduces the learner to the basic concepts and terminology of a computer system hardware and software; applied skills include: managing computer data files; protecting against computer viruses; creating simple web pages; producing electronic word documents, spreadsheets and presentations; investigating current employment trends; and examining techniques of systems analysis & design, programming languages and database systems.

### **10154122 A+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.

### **10154127 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.

### **10154175 A+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 A+1 or CONDITION:

CompTIA A+ Essentials Certification

### **10801195 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

CONDITION: Written Comm Prepared Learner

(Accuplacer Wrtg min score of 86 or Equivalent) and

COREQUISITE: 10838105 Intro Rdg & Study Skills or

CONDITION: Reading Accuplacer min score of 74 or equivalent

### **10801196 Oral/Interpersonal Comm**

...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

CONDITION: Reading accuplacer minimum score of 74 or equivalent

### **10804133 Math & Logic**

...will apply mathematical problem solving techniques. Topics will include symbolic logic, sets, algebra, Boolean algebra, and number bases.

PREREQUISITE: Accuplacer Math minimum score of 79

or Equivalent or 10834109 Pre-Algebra and

COREQUISITE: 10838105 Intro Reading and Study Skills or

CONDITION: Reading accuplacer minimum score of 74 or equivalent

### **10809172 Race, Ethnic and Diversity Studies**

...is a course that draws from several disciplines to reaffirm the basic American values of justice and equality by teaching a basic vocabulary, a history of immigration and conquest, principles of transcultural communication, legal liability and value of aesthetic production to increase the probability of respectful encounters among people. In addition to an analysis of majority/minority relations in a multicultural context, the topics of ageism, sexism, gender differences, sexual orientation, the disabled and the American Disability Act (ADA) are explored. Ethnic relations are studied in global and comparative perspectives.

COREQUISITE: 10838105 Intro Reading and Study Skills or Accuplacer Reading score of 74 or equivalent

### **10809195 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 Accuplacer Reading score of 74 or equivalent

### **10809196 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 Accuplacer Reading score of 74 or equivalent

### **10809198 Intro 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 Accuplacer Reading score of 74 or equivalent