

# MICROCOMPUTER AND NETWORKING SYSTEMS

## PROGRAM OVERVIEW

### Microcomputer and Networking Systems Technology (LEA.3V)

Individuals trained in microcomputer and networking systems provide problem solving services to network users. They are typically responsible for maintaining, troubleshooting and administering the use of local area networks (LANs), wide area networks (WANs) mainframe networks, computer workstations, and connections to the internet. It was only a few years ago that the terms Internet, intranet and extranet were used only in very specialized environments. Now they are part of the everyday vocabulary. The widespread use of the Internet has led to the use of routers, proxies, firewalls, VPN (Virtual Private Networks) and now cloud computing and virtualization. The new technologies that have evolved in the last few years have also led to such internet-business terms as B2B, B2C and M2M. Our program is in constant evolution from year to year as the ever-increasing changes in industry dictate changes to course content.

This program provides students with the skills and competencies needed to install, configure and maintain microcomputers, workstation and network operating systems such as Windows and LINUX; install and administer networks and internet/extranet services such as Web servers and Electronic Mail, understand and practice the concepts of cloud computing and virtualization. Areas of study include technical support, UNIX operating systems, network operating systems, managing an enterprise network, Microsoft based systems, and Linux operating systems.

We prepare students for jobs that demand proficiency with Microsoft products and technologies. In addition, Herzing College is a member of the Computer Technology Industry Association (CompTia). We also prepare students for proficiency in microcomputer hardware and operating systems. Because certifications are a reality in the computer industry, the Microcomputers and Networking Systems program contains course material for Microsoft Certified Solutions Associate (MCSA), Cisco CCENT, CompTia A+ and Network+, CompTia Cloud Essentials and CompTia Linux+ certifications.

MCSA Windows Server 2012 track certifications are as follows:

Installing and Configuring Windows Server 2012 (Exam 70-410)  
Administering Windows Server 2012 (Exam 70-411)  
Configuring Windows 8 (Exam 70-687)  
Core Solutions of Microsoft Exchange Server 2013 (Exam 70-341)  
CISCO CCENT Certification:

Cisco Certified Entry Networking Technician (Exam CCENT)  
With a CCENT certification, a network professional demonstrates the skills required for entry-level network support positions – the starting point for many successful careers in networking.

CompTia Certifications:

CompTia A+ Certification Exam 220-701 (A+ Essentials)  
CompTia A+ Certification Exam 220-702 (Practical Applications)  
Network+ Certification Exam N10-004  
CompTia Cloud Essentials Exam CLO-001  
CompTia Linux+ Powered by LPI Exam LX0-101  
CompTia Linux+ Powered by LPI Exam LX0-102  
Program length: 15.5 months (25 hours/week, M-F) includes 12 week internship

## COURSE LIST

Introduction to Computing & Application Software  
Computer Architecture  
Peripherals  
Electronics for Network Specialists  
Introduction to Networking  
The Windows Operating System  
Mathematics for Network Specialists  
Web Server Installation  
Communication Protocols  
Communication and Electronic Mail  
Technical Support  
The UNIX Operating System  
Network Operating System  
Managing an Enterprise Network  
Project  
Work Internship

## CAREER

The Microcomputer and Networking Systems program prepares graduates for employment opportunities with computer support organizations that consult with clients on the installation and maintenance of computer networks.

Examples of employers for these positions include: Group Access, DMS Consulting, Michael Kors, JP Metal, Arinc, Jesta I.S.

Examples of possible job titles include: Cloud Infrastructure Engineer, Technical Support Specialist, Network Specialist, Network Operations Analyst, Network Administrator

Sample average starting salary range: \$32,240 – \$36,400

2015 employment statistic: 100% of available graduates were employed in a related field.

\*Statistics based on most recent available.