

# COMPUTER TECHNOLOGIES

## NETWORK MANAGEMENT

### Network Management Degree - A25590NM

- Day and Evening

The Network Management curriculum prepares individuals for employment supporting local- and wide-area networks. Students will learn how to use technologies to provide for data, voice, image, and video communications in business, industry, and education.

Course work includes design, installation, configuration, and management of local- and wide-area network hardware and software. Emphasis is placed on developing proficiency in the use of network management software and the use of hardware such as switches and routers.

Graduates may find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to take certification examinations for various network products, depending on their local program.

### CISCO Network Associate Certificate – C25590CA

This certificate is designed to prepare students for the CISCO Certified Network Associate (CCNA) examination. Topics include network topologies and design, router configuration and protocols, switching theory, virtual LANS and threaded case studies.

Upon completion of the four-course sequence, students will have the expertise they need to pass the test required to achieve CCNA status. Completion of NET 110 or CTI-120 or its equivalent is required to begin this program.

### CISCO Network Professional Certificate - C25590CP

The CISCO Certified Network Professional (CCNP) certificate provides the student with advanced skills in LAN/WAN networking technologies with an emphasis on CISCO methodology. These courses will provide an in-depth study of theory, as well as practical hands-on lab activities to prepare the student for the CCNP certification objectives. Topics include routing protocols, switching technology, remote access setup and maintenance, building multi-layer networks, and networking troubleshooting.

### Microsoft Certified IT Professional Certificate - C25590MS

- Day and Evening

This certificate is intended for students who are interested in testing for the MCITP or MCSA industry certifications. Courses cover the installation, configuration and management of Microsoft operating systems.

### Linux Certified IT Professional Certificate – C25590LX

-Day and Evening

This certificate is designed to prepare students for Linux or Red Hat certifications. Topics include network installation, Red Hat Linux file system and kernel concepts, scripts, system recovery, cron system, LILO configuration, implement configure, log and restrict various Red Hat network services, configuration issues associated with using Red Hat Linux as a router, basic firewall policies, and basics of the XWindow system. Completion of NOS-110 or CTI-130 is required to begin this program.

### Linux Security Specialist Certificate – C25590LS

-Day and Evening

Graduates from this certificate program will be prepared to demonstrate their knowledge, skills, and abilities in securing and auditing Linux based systems. Students will learn how to install, configure, and monitor Linux systems that include Apache, and Security Enabled Linux servers and workstations. Graduates will be ready to demonstrate proficiency in the management and hardening of LAMP stack systems.

### Global Windows Security Administration Certificate – C25590WS

-Day

Graduates from this certificate program will be prepared to demonstrate their knowledge, skills, and abilities in securing Microsoft Windows clients and servers, including technologies such as PKI, IPSec, and Group Policies. Students will learn how to install, configure and secure Windows operating systems. Graduates will be ready to demonstrate proficiency in managing the hardening of Windows systems against malware and persistent adversaries.

### Cisco Security Certificate – C25590CX

-Day and Evening

This program is intended for individuals who are interested in getting certified in network security. Courses lead to industry credentials in networking and network security.

### Program Sequence

#### FIRST SEMESTER

CTI 110	Web, Programming and Database Foundations .....	3
CTI 120	Network and Security Foundations.....	3
NOS 110	Operating System Concepts .....	3
ENG 111	Writing and Inquiry.....	3
MAT 143	Quantitative Literacy.....	3

#### SECOND SEMESTER

NET 125	Introduction to Networks.....	3
NET 126	Routing Basics.....	3
CTS 120	Hardware/Software Support .....	3
NOS 130	Windows Single User .....	3
NOS 230	Windows Admin I.....	3

#### SUMMER SEMESTER

NET 225	Routing and Switching I.....	3
NET 226	Routing and Switching II.....	3

#### THIRD SEMESTER

CTS 115	Info Sys Business Concepts.....	3
ENG 114	Professional Research and Reporting.....	3
NOS 120	Linux / UNIX Single User.....	3
— —	Major Elective I .....	3

#### FOURTH SEMESTER

CTS 288	Professional Practices in IT .....	3
— —	HUM / FA Elect (Min 3 cr hrs).....	3
— —	Social and Behavioral Sciences Elect (Min 3 cr hrs) ...	3
— —	Major Elective II .....	3

#### SUMMER SEMESTER

— —	Major Elective III .....	2
NET 289	Networking Project .....	3

# COMPUTER TECHNOLOGIES

## Humanities/Fine Arts Elective

(Select 3.0 hours from the following courses)

ART 111	Art Appreciation.....	3
HUM 115	Critical Thinking.....	3
MUS 110	Music Appreciation.....	3
PHI 240	Introduction to Ethics.....	3

## Social/Behavioral Science Elective

(Select 3.0 hours from the following courses)

ECO 251	Prin. Of Microeconomics.....	3
ECO 151	Survey of Economics.....	3
POL 120	American Government.....	3
PSY 118	Interpersonal Psychology.....	3
PSY 150	General Psychology.....	3
SOC 210	Introduction to Sociology.....	3

## Concentration Electives List

Select one option from grouping below:

### Option 1 – Microsoft Certified IT Professional Track

NOS 231	Windows Administration II.....	3
NOS 232	Windows Administration III.....	3

### Option 2: Cisco Certified Network Professional Track

NET 270	Building Scalable Networks.....	3
NET 272	Multi-Layer Networks.....	3
NET 273	Internetworking Support.....	3

### Option 3: Red Hat Certified Engineer Track

NOS 220	Linux/UNIX Administration I.....	3
NOS 221	Linux/UNIX Administration II.....	3
NOS 222	Linux/UNIX Administration III.....	3

### Option 4: Data Storage & Virtualization Track

CTI 140	Virtualization Concepts.....	3
CTI 240	Virtualization Admin I.....	3
CTI 241	Virtualization Admin II.....	3

### Option 5: Mixed Elective Track

CCT 121	Computer Crime Investigations.....	4
CCT 240	Data Recovery Techniques.....	3
CTS 118	IS Professional Comm.....	2
CTS 135	Integrated Software Intro.....	4
CTS 155	Technical Support Functions.....	3
CTS 220	Advanced Hardware/Software Support.....	3
CTS 255	Advanced Technical Support Functions.....	3
CTS 272	Desktop Support: Apps.....	3
NET 115	Telecom for IT Professionals.....	3
NET 135	Data Center Networking.....	3
NET 175	Wireless Technology.....	3
NET 240	Network Design.....	3
NOS 125	Linux/UNIX Scripting.....	3
OMT 154	Customer Satisfaction.....	2
PMT 110	Intro to Project Management.....	3
SEC 110	Security Concepts.....	3
SEC 150	Secure Communications.....	3
SEC 160	Security Administration I.....	3
WBL ____	Work Based Learning (All numbers acceptable).....	3

**Graduation Requirements..... 65 Credit Hours**

## Data Storage and Virtualization Diploma - D25590DV

- Evening

This diploma under the Network Management degree includes many courses from that degree, but requires a specific elective path following Virtualization. The skills and credentials that the student could earn with this diploma include those in that area of operating system virtualization, which is a prominent technology in cloud computing and datacenter operations.

The diploma includes courses in Cisco routing and switching, Microsoft desktop and server operating systems, and in-depth training with O/S virtualization. Instruction in these areas can qualify students to take industry certification exams in VMWare, Cisco, Microsoft, CompTIA, and NetApp.

This diploma also includes a work-based learning component, putting students to work in live datacenters.

CTI 110	Web, Pgm & DB Foundation.....	3
CTI 140	Virtualization Concepts.....	3
CTI 240	Virtualization Admin I.....	3
CTI 241	Virtualization Admin II.....	3
CTS 115	Info Sys Business Concept.....	3
CTS 120	Hardware/Software Support.....	3
ENG 114	Professional Research & Reporting.....	3
NET 125	Networking Basics.....	3
NET 126	Routing Basics.....	3
____	NOS-110 or CTI-130.....	3
NOS 130	Windows Single User.....	3
NOS 230	Windows Admin I.....	3
WBL 113	Work Based Learning I.....	3

**Graduation Requirements..... 42 Credit Hours**