

Network Administration

(Academic Plan code 1101017079 subplan code 110101701)

The Network Administration option provides the knowledge and skills needed to design, set-up, maintain, and expand networked systems. The curriculum provides specific training in Cisco and/or Microsoft network systems. Upon completion of the option/certificate the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large businesses and organizations and computer network administration positions in small businesses.

Students entering this program will need to have basic computer skills such as would be obtained through the CIS 100 course (Introduction to Computers) or equivalent.

General Education Core courses:

- ENG 101 *Writing I*
- ENG 102 *Writing II*
- Oral Communication Course
- Social Interaction Course
- Heritage/Humanities Course
- MT 150 *College Algebra*
- Science Course with Lab

*All incoming freshmen are required to successfully complete GE 100 or GE 101 within their first 18 hours. Note: this does not apply to transfer students

Technical Core courses:

- CIS 120 *Program Design and Development*
- ET 107 *Computer Applications for Technicians* OR CIS 130 *Microcomputer Applications*
- Complete **one** of the following pairs of courses:
 - ET 232 *Software Maintenance* OR CIS 110 *Operating Systems Concepts* AND
 - ET 234 *Hardware Maintenance* OR
 - IT 105 *Computer Maintenance Essentials* AND
 - IT 205 *Advanced Computer Maintenance*
- Introductory Networking Course
- IT 170 *Introduction to Database Design*
- IT 132 *Web Page Development* OR IT 130 *Web Site Design and Production*
- Beginning Level Programming Language Course (**IT 147 will not satisfy this requirement**)

* recommended for Microsoft Networking tracks

** recommended for Cisco Networking tracks

Network Admin Option courses:

Choose from **one** of the following four options:

Cisco Associate (CCNA) Option

Complete the following pairs of courses:

- IT 122 *Routing Protocols and Concepts* (if * IT 120 was taken in the core) OR IT 123 *Small to Medium Business or ISP Networking* (if IT 121 was taken in the core) AND
- IT 220 *LAN Switching and Wireless* AND
- IT 222 *Accessing the WAN* OR
- IT 223 *Introducing Routing and Switching in the Enterprise* AND
- IT 225 *Designing and Supporting Computer Networks*

- NIS 213 *Administering Microsoft Windows Server* OR NIS 230 *UNIX Administration*
- Technical Electives (6 credit hours—two courses)
*IT 121 and 123 may be substituted for IT 120 in the sequence

Cisco Professional (CCNP) Option

- IT 280 *Building Scalable Cisco Internetworks (BSCI)*
- IT 282 *Implementing Secure Converged Wide-area Networks (ISCW)*
- IT 284 *Building Cisco Multilayer Switched Networks (BCMSN)*
- IT 286 *Optimizing Converged Cisco Networking (ONT)*
- Technical Electives (6 credit hours—two courses)

Microsoft MCSA Option

- NIS 211 *Administering Microsoft Windows Professional Topic*
- NIS 213 *Administering Microsoft Windows Server Topic*
- NIS 214 *Supporting Windows Network Infrastructure Topic*
- MCSA Track Elective (3-6 hours)
- Technical Elective (6 credit hours—two courses)

MCSA Track Elective Courses

- NIS 216 *Implementing and Administering Microsoft Windows Directory Services Topic*
- NIS 246 *Microsoft SQL Server System Administration Topic*
- NIS 245 *Designing a Secure Microsoft Windows Network Topic*
- NIS 262 *Microsoft Internet Security and Acceleration Server (ISA)*
- NIS 264 *Implementing and Managing Microsoft Exchange Server*
- IT 210 *Operating System Support* * AND
- IT 215 *Application Support* *
*must be completed together to count as single elective

Microsoft MCSE Option

- NIS 211 *Administering Microsoft Windows Professional*
- NIS 213 *Administering Microsoft Windows Server*
- NIS 214 *Supporting Windows Network Infrastructure*
- NIS 216 *Implementing and Administering Microsoft Windows Directory Services*
- NIS 244 *Designing a Windows Networking Services Infrastructure*
- NIS 242 *Designing a Windows Directory Services Infrastructure* OR NIS 245 *Designing a Secure Microsoft Windows Network*
- MCSE Track Elective (3 hours)
- Technical Elective (3 hours)

MCSE Track Elective Courses

- NIS 242 *Designing a Windows Directory Services Infrastructure*
 - NIS 245 *Designing a Secure Microsoft Windows Network*
 - NIS 246 *Microsoft SQL Server System Administration*
 - NIS 262 *Microsoft Internet Security and Acceleration Server (ISA)*
 - NIS 264 *Implementing and Managing Microsoft Exchange Server*
 - IT 250 *Introduction to Security*
- [†] must be different than course chosen above

Beginning Level Programming Languages:

- CIS 143 *COBOL Programming*
- CIS 148 *Visual Basic I*
- CIS 149 *Java Programming I*
- CIS 155 *C/C++ Programming I*
- IT 147 *SQL Programming* (cannot fulfill technical core requirement)
- NIS 150 *Perl Programming I*
- NIS 152 *Introduction to Javascript*
- CS 115 *Introduction to Computer Programming*
- IT 141 *Introduction to PHP*

Other courses approved by program coordinator**Introductory Networking Course**

- NIS 160 *Networking Core Technologies**
- IT 120 *Networking Fundamentals* **
- IT 121 *Networking for Home and Small Business*

* recommended for Microsoft Networking Tracks

**recommended for Cisco Networking Tracks

