

**Networking Technology (A25340)**

Official Program Description registered with the NC Community College System:

The Networking Technology curriculum prepares individuals for employment supporting network infrastructure environments. Students will learn how to use technologies to provide reliable transmission and delivery of data, voice, image, and video communications in business, industry, and education.

Course work includes design, installation, configuration, and management of network infrastructure technologies and network operating systems. Emphasis is place on the implementation and management of network software and the implementation and management 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 industry certifications, depending on their local program.

**Program Learning Outcomes**

The Associate of Applied Science Degree in Network Technology is designed to prepare students for employment and careers in installation and support of networks and develop strong analytical skills and extensive computer knowledge. Graduates of this program will develop skills in decision making, communication, and technical applications.

Graduates of this program will be able to:

- Install and upgrade networks and servers for optimal performance.
- Manage client services and network features and optimize network performance.
- Select appropriate computer equipment, upgrade and maintain existing equipment, and troubleshoot and repair non-functioning personal computers.
- Analyze a problem and design an appropriate solution using a combination of tools and technologies.
- Analyze, diagnose, research, and fix network hardware problems.
- Understand the fundamentals of telecommunication and networking.
- List the key internetworking functions of the OSI Networking Layer and how they are performed in a variety of router types.
- Provide solutions for network routing problems, identify ISDN protocols, channels, and function groups, and describe the Spanning Tree protocol.
- Apply mathematical concepts and methods to understand, analyze, and solve mathematical problems necessary to perform job-related tasks.
- Communication information effectively using a variety of written, spoken, and/or visual methods.
- Demonstrate knowledge of accepted ethical behavior and interpersonal skills that reflect an understanding of diversity and the need for teamwork.
- Understand the importance of keeping abreast of technological changes that effect the office professional.

**Degree Awarded**

The Associate in Applied Science Degree - Network Technology is awarded by the College upon completion of this program.

**Note**

Individuals desiring a career in Networking Technology (25340) should, if possible, take algebra, keyboarding, and computer applications courses prior to entering the program. Courses that require critical reading and written oral communication skills will also be valuable.

Though students are not required to own their own computer, it is strongly recommended. In addition to textbooks, students will be required to provide their own portable storage media, such as USB drives, for most classes.

**For More Information**

The Network Technology program is in the Business and Computer Technologies Division. For more information, call (919) 735-5151, ext. 272. On the Internet send e-mail to [bull@waynecc.edu](mailto:bull@waynecc.edu) or visit us at our web site at [www.wayne.cc.edu](http://www.wayne.cc.edu) or [www.waynecc.edu/academic-programs/outlines/A2526D.pdf](http://www.waynecc.edu/academic-programs/outlines/A2526D.pdf).

**Admissions**

- A high school diploma or equivalent is required.
- Placement tests in English, mathematics, reading and computer skills are required to determine entry-level courses that match individual needs.

**First Step To Enroll:**

Call the Admissions and Records Office at (919) 735-5151, ext. 238.

			Contact Hours	Semester Credit Hours
<b>FIRST SEMESTER</b>				
ACA	111	College Student Success.....	1	1
BUS	110	Introduction to Business .....	3	3
CIS	110	Introduction to Computers .....	4	3
ENG	111	Expository Writing.....	3	3
NET	125	Networking Basics .....	3	3
NOS	110	Operating System Concepts....	5	3
				16
<b>SECOND SEMESTER</b>				
CIS	115	Intro to Prog & Logic.....	5	3
CTS	120	Hardware/Software Support ....	5	3
DBA	110	Database Concepts .....	5	3
NET	126	Routing Basics .....	5	3
NOS	120	Linux/UNIX Single User.....	4	3
NOS	130	Windows Single User.....	4	3
				18
<b>THIRD SEMESTER</b>				
ENG	114	Professional Research and Reporting .....	3	3
MAT	140	Survey of Mathematics .....	3	3
NET	225	Routing and Switching I.....	5	3
NOS	230	Windows Admin I .....	4	3
SEC	110	Security Concepts.....	3	3
		Humanities/Fine Arts Elective ..	3	3
				18
<b>FOURTH SEMESTER</b>				
COE	110	World of Work .....	1	1
CTS	118	IS Prof Comm .....	2	2
NET	226	Routing and Switching II.....	5	3
NET	289	Networking Project.....	5	3
			Contact Hours	Semester Credit Hours
NOS	231	Windows Admin II .....	4	3
		Major Elective .....	3	3
		Social/Behav Science Elective	3	3
				18
<b>Total Credit Hours</b>				<b>70</b>

Select Major Elective from the courses below:

- At least 3 semester hours of Major Electives must be completed.
- COE 111 and COE 112 must be completed in sequence in order to meet the Major Elective requirement.
- No more than 3 hours of Cooperative Education courses can be applied as a Major Elective.
- The Department Head for Information Systems must approve Cooperative Education Courses in advance as Major Elective.

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	Contact	Semester	
	Hours	Credit Hours	
COE 111	Co-op Work Experience I.....	10	1
COE 112	Co-op Work Experience I.....	20	2
COE 121	Co-op Work Experience II.....	10	1
COE 122	Co-op Work Experience II.....	20	2
COE 131	Co-op Work Experience III.....	10	1
CSC 151	Java Programming.....	5	3
CTS 285	Systems Analysis & Design .....	3	3
DBA 115	Database Applications .....	4	3
SEC 150	Secure Communications.....	4	3