# NETWORK VIRTUALIZATION (CCC)

**Previous Degree Required:** HS Diploma
**Eligible for Financial Aid:** Yes
**Delivery Method(s):** On-Campus, Hybrid
**Location(s):** All campuses and online
**Limited Access:** No
**Program Testing Requirements:** Not Required
**Academic Community:** STEM
**Program Code:** NVCC
**Classification of Instructional Programs (CIP) Code:** 11.1001
**Florida Department of Education CIP Code:** 0511100116

This program is part of the A.S. Cybersecurity and Network Systems degree.

This certificate program is designed to prepare students for entry-level network server administrator position. The core courses provide an introduction to:

- fundamentals of computer virtualization
- installing and configuring the virtualization server platform
- installing, configuring and managing virtualized clients
- planning for business continuity and high availability

The techniques and skills are introduced in a progressive delivery starting with, client and server operating systems, computer virtualization methods, and elements of server administration.

Students currently employed in the field can supplement and upgrade their skills through a variety of offerings in computer systems administration, client and server virtualization in a networked environment. Credits earned in this certificate may apply to the A.S. Cybersecurity and Network Systems degree.

Refer to the College Credit Certificate overview page to find information about admission, graduation, general education and other requirements.

Visit the program page for more information.

## Program of Study

| Code | Title | Credit Hours |
|---|---|---|
| **Major Courses** | | |
| CTS 1321 | Linux Networking and System Administration | 3 |
| CTS 1329 | Microsoft Client O/S | 3 |
| CTS 1383 | Microsoft Server O/S - Installation and Configuration | 3 |
| CTS 2370 | Virtual Infrastructure- Planning and Design | 3 |
| CTS 2371 | Virtual Computing- Deployment, Security, and Analysis (VMware) | 3 |
| CTSC 1134 | Network+ | 3 |
| CTSC 1651 | Cisco Router Technology | 3 |
| CTSC 2120 | Network Security Fundamentals | 3 |
| **Total Hours:** | | **24** |

## Course Sequence

Below is the recommended sequence for taking courses in this degree. Using this guide and meeting with your assigned advisor each term is the key to successful program completion.

Please note that course prerequisites, including required developmental math, reading, or writing, need to be completed to continue on to the more advanced course. Courses followed by "&" have prerequisites that are not part of this program. Click on the course number to see the requirements.

| Code | Title | Credit Hours |
|---|---|---|
| CTSC 1134 | Network+ | 3 |
| CTS 1329 | Microsoft Client O/S | 3 |
| CTS 1321 | Linux Networking and System Administration [Fa, Sp] | 3 |
| CTS 1383 | Microsoft Server O/S - Installation and Configuration [Fa, Sp] | 3 |
| CTSC 1651 | Cisco Router Technology | 3 |
| CTSC 2120 | Network Security Fundamentals [Fa, Sp] | 3 |
| CTS 2370 | Virtual Infrastructure- Planning and Design [Fa, Sp] | 3 |
| CTS 2371 | Virtual Computing- Deployment, Security, and Analysis (VMware) [Sp] | 3 |
| **Total Hours:** | | **24** |

\- If not designated, course is offered every term
Fa Course offered in fall term
Sp Course offered in spring term
* *Course offering schedule may be subject to change.*

## Learning Outcomes

1. Apply subnetting to IP Networks
   - *Core Ability Supported: Think Critically and Solve Problems*
2. Analyze asymmetric encryption methods for secure authentication and data exchange.
   - *Core Ability Supported: Think Critically and Solve Problems*
3. Design a group policy strategy
   - *Core Ability Supported: Think Critically and Solve Problems*
4. Install a domain controller
   - *Core Ability Supported: Think Critically and Solve Problems*
5. Contrast absolute and relative pathnames
   - *Core Ability Supported: Think Critically and Solve Problems*
6. Contrast stand-alone utilities and built-in shell commands
   - *Core Ability Supported: Think Critically and Solve Problems*
7. Create a small workgroup environment
   - *Core Ability Supported: Think Critically and Solve Problems*
8. Contrast NTFS and share level file and folder permissions
   - *Core Ability Supported: Think Critically and Solve Problems*