Miami Dade College

Course Description

CTS2306 | Administering Windows Servers | 4.00 credits

This course is intended for the student majoring in Information Technology (IT) as network support specialists and/or server administrators. The student will learn to administer the tasks required to maintain a Windows Server infrastructure. In addition, the student will be eligible for industry certification. Recommended Preparation: CTS1134 and CTS2303 or equivalent knowledge.

Course Competencies:

Competency 1: The student will demonstrate how to implement Domain Name System by:
1. Determining Domain Name System (DNS) installation requirements.
2. Installing and Configuring DNS servers.
3. Creating and Configuring DNS zones and records.

Competency 2: The student will demonstrate how to implement Dynamic Host Configuration Protocol (DHCP) and IP Address Management (IPAM) by:
1. Installing and configuring DHCP.
2. Managing and maintaining DHCP.
3. Implementing and Maintaining IP Address Management (IPAM).

Competency 3: The student will demonstrate how to configure Network Connectivity and Remote Access Solutions by:
1. Implementing Network Address Translation (NAT) and configuring routing.
2. Configuring Network Policy Server (NPS) role and services.
3. Configuring NPS policies.
4. Configuring Network Access Protection (NAP).
5. Configuring Virtual Private Networking (VPN) and routing.
6. Configuring DirectAccess.

Competency 4: The student will demonstrate how to implement core and distributed network solutions by:
1. Determining network address and namespace requirements.
2. Implementing IPv4 and IPv6 addressing.
3. Implementing Distributed File System (DFS) roots, targets, and replication.
4. Installing, configuring, and troubleshooting BranchCache.

Competency 5: The student will demonstrate how to implement an advanced network infrastructure by:
1. Creating and configuring Hyper-V virtual switches.
2. Implementing high-performance network solutions.
3. Determining scenarios and requirements for implementing Software Defined Networking (SDN).
4. Implementing and deploying Network Controller.

Competency 6: The student will demonstrate workplace-readiness skills by:
1. Following oral and written instructions.
2. Participating in group discussions as a member and as a leader.
3. Demonstrating self-motivation and responsibility to complete an assigned task.
4. Choosing appropriate actions in situations requiring effective time management.
5. Applying principles and techniques for being a productive, contributing member of a team.
6. Identifying and discussing intellectual property rights and licensing issues.
7. Identifying and discussing issues contained within professional codes of conduct.

8. Using appropriate communication skills, courtesy, manners, and dress in the workplace.
9. Documenting problems and solutions in service reports and maintaining support records.
10. Performing research on technical issues using Internet and database resources.

Learning Outcomes:
1. Information Literacy
2. Numbers / Data
3. Social Responsibility
4. Communication
5. Computer / Technology Usage
6. Critical Thinking
7. Ethical Issues