

DCOM 263

Virtualization and Cloud Computing Using VMWare

3 Credits

Community College of Baltimore County

Common Course Outline

Description

DCOM 263 – Virtualization and Cloud Computing Using VMWare: enables students to install, configure, manage, maintain, and troubleshoot a virtual network infrastructure/cloud platform using VMware VSphere. Students install and configure virtual machines, virtual networks, and virtual hard disks on datacenter and cloud servers. The course is designed for students pursuing a career in network engineering, virtualization, or cloud computing. The course is designed to help students prepare for the VMware certification exam.

Pre-requisites: DCOM 101

Overall Course Objectives

Upon completion of this course, students will be able to:

1. identify the benefits of virtualization;
2. install datacenter servers and cloud servers;
3. create and configure virtual machines;
4. migrate and clone virtual machines;
5. install and configure guest operating systems;
6. configure virtual switches;
7. configure security parameters;
8. install and configure storage area networks (SAN's) and virtual hard disks;
9. monitor, analyze, and optimize system performance;
10. implement fault tolerance;
11. upgrade software and perform host maintenance; and
12. implement a virtual network infrastructure.

Major Topics

- I. Principles of cloud computing and virtualization
- II. Components of a datacenter
- III. Datacenter server installation
- IV. Virtual machines
- V. Virtual networks and virtual switches
- VI. Storage area networks and virtual hard disks
- VII. Performance monitoring and optimization
- VIII. Security
- IX. Fault tolerance
- X. Scalability

The Common Course Outline (CCO) determines the essential nature of each course.

For more information, see your professor's syllabus.

XI. Updates and host maintenance

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- Midterm exam
- Final exam
- One project

Other Course Information

This course prepares the students to take VMware certification exam.

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