



CS-401: Virtual Computing

Description:

3 credits/126 hours

Prerequisite: None

This course provides students with a working knowledge of the leading virtualization products, including Oracle VirtualBox, VMware Workstation, Microsoft Hyper-V, and VMware vSphere. In addition to learning how to install and use the products, students learn how to apply virtualization technology to create virtual data centers that use clusters for high availability, use management software to administer multiple host systems, implement a virtual desktop environment, and leverage cloud computing to build or extend the data center and provide disaster recovery services.

Textbook: Hands-On Virtual Computing, 2nd Ed., Simpson & Novak– ISBN: 978-1-3371-0193-6

Course objectives:

Throughout the course, you will meet the following goals:

- Understand virtualization, virtual machines, and cloud computing terms and concepts
- Learn to find, install, and work with various cloud and virtual computing software
- Develop an understanding of Virtual Desktop Infrastructure and learn to describe the origins, challenges, components, and functions of VDI.
- Build virtual desktops and learn how to create, configure, and share virtual machines
- Describe the major applications of cloud computing in data centers

Contents:

- Chapter 1: Introduction to Virtual Computing
- Chapter 2: Working with Oracle VM VirtualBox 5
- Chapter 3: Working with VMware Workstation 12 Pro
- Chapter 4: Data Center Virtualization and Cloud Computing
- Chapter 5: Working with Microsoft Hyper-V
- Chapter 6: Working with Virtual Machine Manager
- Chapter 7: Working with VMware vSphere
- Chapter 8: Working with VMware vCenter Server
- Chapter 9: Implementing a Virtual Desktop Infrastructure
- Chapter 10: Introduction to Cloud Computing

Grading Scale (70% required for passing)

- A = 90-100%**
- B = 80-89.9%**
- C = 70-79.9%**
- F = Below 70%**

Grade Weighting

Chapter Quizzes.....	50%
Activities	20%
Final Exam	30%
	100%