

ITNW 1313 Computer Virtualization Fall 2019

General Course Information

Instructor: Alex Escobar

Office: virtual

Office Hours: by appointment

E-mail: (contact thru Canvas)

Classroom: Rm 116 Brays Oaks Campus

Class Times: 6-9 Tue

Prerequisites:

Textbook: Ted Simpson and Jason Novak, **Hands-On Virtual Computing, 2nd Edition.**
Cengage, 2018, ISBN-13: 9781337101936

Course Objectives

This course overviews the latest virtualization technology with chapters dedicated to Oracle VirtualBox, VMware Workstation, Microsoft® Hyper-V, and VMware vSphere. Content focuses on virtualization in software-defined data centers. Readers learn to build virtual networks, implement high-availability clusters, enhance performance and security, and manage the virtual data center. Students implement virtual desktop infrastructures using both VMware Horizon and Microsoft VDI. They also examine cloud computing environments with VMware vCloud and Microsoft Azure.

Specific topic coverage includes:

- Introduction to Virtual Computing
- Working with Oracle VM VirtualBox 5
- Working with VMware Workstation
- Data Center Virtualization and Cloud Computing
- Working with Microsoft Hyper-V
- Working with Virtual Machine Manager
- Working with VMware vSphere
- Working with VMware vCenter Server
- Implementing a Virtual Desktop Infrastructure
- Introduction to Cloud Computing

Web Site

Supplementary information for the course is available at [URL]. The Web site contains class notes, PowerPoint slides, class announcements, the course syllabus, test dates, and other information for the course.

E-Mail

All students are requested to obtain an e-mail account. If you have any questions about the course or need assistance, please contact me in person or by telephone during office hours; or by e-mail at any time.

Grading and Evaluation Criteria

40% of the grade is based on a midterm and a final examination. Both examinations are cumulative and given in a varied format. An in-class review will be held prior to each examination.

20% of the grade is based on quizzes. Quizzes are announced one day in advance and may vary from three to five questions that may be in any format.

40% of the grade is based on keeping a project notebook. Students are asked to obtain a small notebook to enter the results of the various Hands-On Activities placed throughout the chapter and the answers to the Case Projects at the end of each chapter in the text.

16-Week Course Outline

Week	Topics	Chapter Readings	Date
1	Introduction to Virtual Computing	Chapter 1	Aug-27
2	Labor Day		Sept-3
3	Working with VMware Workstation	Chapter 3	Sept-10
4	Working with Oracle VM VirtualBox 5	Chapter 2	Sept-17
5	Data Center Virtualization and Cloud Computing	Chapter 4	Sept-24
6	Working with Microsoft Hyper-V	Chapter 5	Oct-1
7	Review		Oct-8
8	Midterm Exam		Oct-15
9	Working with Virtual Machine Manager	Chapter 6	Oct-22
10	Working with VMware vSphere	Chapter 7	Oct-29
11	Working with VMware vCenter Server	Chapter 8	Nov-5
12	Implementing a Virtual Desktop Infrastructure	Chapter 9	Nov-12
13	Introduction to Cloud Computing	Chapter 10	Nov-19
14	Final Projects		Nov-26
15	Final Projects / Review		Dec-3
16	Final Exam		Dec-10