VMware
IT 293 / CRN# 56348
Spring '22
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or
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COURSE DESCRIPTION
This course develops the knowledge, skills, and abilities to build and run a VMware environment hosting a variety of Linux and Windows virtual machines.

EMAIL
Be sure to check your contact information in Banner and keep it updated. UNM email as our official form of course communication. When communicating with your instructor always include class name in the subject header.

Student Learning Outcomes/Course Objectives:

- Install and configure ESXi servers/hosts
- Deploy and configure vCenter
- Manage vCenter Server inventory
- Create virtual switches
- Describe the storage technologies supported by vSphere
- Create and manage VMFS datastores
- Use vSphere Client to create virtual machines, templates, clones, and snapshots
- Describe vMotion

In order to participate and succeed in this class, you will need to be able to perform the following basic technical tasks:

- Use UNM Learn (help documentation located in "How to Use Learn" link on left course menu, and also at Online Student Documentation). Also, UNM-Valencia provides a Blackboard Learn Jumpstart self-learning module to give you practice with the most commonly used tools in UNM Learn. Ask your instructor if you do not see the UNM-Valencia Blackboard Learn Jumstart in your list of classes in UNM Learn.

- Use email – including attaching files, opening files, downloading attachments

- Copy and paste within applications including Microsoft Office

- Open a hyperlink (click on a hyperlink to access a website or online resource)

- Create, download, update, save and upload MS Word documents

- Use the in-course web conferencing tool (Collaborate Web Conferencing software in UNM Learn) or use Zoom or other web conferencing tool

- Download and install an application or plug in – required for participating in web conferencing sessions

TECHNICAL REQUIREMENTS

Computer
- A high-speed Internet connection is highly recommended.

- Supported browsers include: [Detailed Supported Browsers and Operating Systems](#)

- Any computer capable of running a recently updated web browser should be sufficient to access your online course. However, bear in mind that processor speed, amount of RAM and Internet connection speed can *greatly* affect performance.

- For the best experience when using the Kaltura Media Tools inside UNM Learn, be sure to use a [supported browser](#) on a desktop.

- Microsoft Office products are available free for all UNM students (more information on the [UNM IT Software Distribution and Downloads page](#))

- Please update your contact information in Loboweb: [MyUNM Login](#). When you log into MyUNM, Enter LoboWeb. Click on the Personal Information link to make sure your contact information is up to date.

Web Conferencing
Web conferencing will be used in this course during the following times and dates:
For the online sessions, you will need:
- A USB headset with microphone. Headsets are widely available at stores that sell electronics, at the UNM Bookstore or online.

- A high-speed internet connection is highly recommended for these sessions. A wireless Internet connection may be used if successfully tested for audio quality prior to web conferencing.

- You should also dress as you would when attending an in-person class, even if you do not turn on your video camera.

Technical Support
- For UNM Learn Technical Support: (505) 277-0857 (24/7) or use the "Create a Tech Support Ticket" link in your course.

- For UNM-Valencia IT Support: (505)925-8911

- For UNM Web Conference Technical Help: (505) 277-0857

- Any Oracle Academy problems **CONTACT ME**

TEXTBOOK AND SUPPLEMENTAL MATERIALS

Required Textbooks:
All relevant class materials are located on the VMware website
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COURSEWORK AND PARTICIPATION

Instructor Response Time
I routinely check the course for postings or emails, Monday through Friday between 7:00 and 10:00 AM. You can anticipate a 24 to 48 hour response from me. If you MUST contact me, please text, but don't forget I sleep too.

Procedures for Completing Coursework

- *The Section quizzes are on server and VM configuration schemes*

Course Schedule
There will be one to two recorded lectures per week. Each lecture will have a phrase (ex. It's hot). Who knows where it will appear. To get credit for the lecture you must email me the phrase. The phrase could be anywhere in the lecture.

Expectations for Participation

- *time required (9-12 hrs per week)*

- *students are expected to learn how to navigate in Learn*

- *students are expected to keep abreast of course announcements*

- *students are expected to use the Learn course email as opposed to a personal email address*

- *students are expected to keep instructor informed of class related problems, or problems that may prevent the student from full participation*

- *students are expected to address technical problems immediately*

- *students are expected to observe course netiquette at all times*

Netiquette

- *Netiquette document*

NOTES TO STUDENTS ABOUT PARTICIPATION IN A COURSE USING UNM LEARN:

Tracking Course Activity

UNM Learn and Cisco Academy automatically records all students' activities including: your first and last access to the course, the pages you have accessed, the number of discussion messages you have read and sent, web conferencing, discussion text, and posted discussion topics. This data can be accessed by the instructor to evaluate class participation and to identify students having difficulty

Grading Scale

Quizzes	20%	A 90 +	
vCenter Usage	20%	B 80 - 89	
ESXi quizzes	10%	C 70 - 79	
Mid Term	20%	D 60 -69	
Final	30%	F < 60	
Total	100%		

UNM POLICIES

Equal Opportunity and Non-Discrimination

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg. 15). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity.
Read more about campus policy regarding sexual misconduct.

Copyright Issues

All materials in this course fall under copyright laws and should not be downloaded, distributed, or used by students for any purpose outside this course.

The UNM Copyright Guide has additional helpful information on this topic.

Accessibility and Accommodations

The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodations of their disabilities. If you have a disability requiring accommodation, please contact:

- [UNM-Valencia Student Services](#) if you are a Valencia campus student. The phone number is 505-925-8560

- [UNM Accessibility Resource Center](#) in 2021 Mesa Vista Hall if you are a main campus student. The phone number is 505-277-3506.

Information about your disability is confidential and your instructor cannot refer you for accommodations. Be aware that you will need to provide documentation. If you need assistance in obtaining documentation, the offices above can assist you.

Academic Integrity

You should be familiar with UNM's Policy on Academic Dishonesty and the Student Code of Conduct which outline academic misconduct defined as plagiarism, cheating, fabrication, or facilitating any such act.

Drop Policy:

[This section states your departmental policy for dropping students – edit or include your own statement.]

UNM Policies: This course falls under all UNM policies for last day to drop courses, etc. Please see or the UNM Course Catalog for information on UNM services and policies. Please see the UNM academic calendar for course dates, the last day to drop courses without penalty, and for financial disenrollment dates.

UNM RESOURCES

- **[UNM Valencia Campus Tutoring Services](#)**

- **[UNM Main Campus CAPS Tutoring Services](#)**

- **[UNM-Valencia Library](#)**

- **[UNM Libraries](#)**

- **["Life" Resources available to UNM-Valencia Students](#)**

- **[Student Health & Counseling (SHAC) Online Services](#)**

FOR MILITARY-CONNECTED STUDENTS
There are resources on campus designed to help you succeed. You can approach any faculty or staff for help with any issues you may encounter. Many faculty and staff have completed the GREEN ZONE training to learn about the unique challenges facing military-connected students. If you feel that you need help beyond what faculty and/or staff can give you, please reach out to the Veterans Resource Center on main campus at 505-277-3181, or by email at vrc@unm.edu. The Veterans Coordinator at UNM-Valencia is in the Student Services Office, at 505-925-8560.

SEMESTER DEADLINES
Spring 2021 – 16-week classes (deadlines will be different for first and second 8-week classes)

- 28-Jan   Enrollment Cancellation for non-payment

- 28-Jan   Last Day to Add Courses or Change Sections

- 3-Sep   Last day to CHANGE grade mode on LoboWEB.

- 4-Feb   Last day to DROP without "W" grade and 100% tuition refund
- 11-Feb   Last day to Grading Options

- 13-Mar   *Spring Break*

- 15- April   Last day to DROP without Dean's Permission

- 6-May   Last day to DROP with Student Services Permission.

- 9-May   *Finals Week*

- 13-May   Last day to report removal of Incomplete.

COURSE OUTLINE:

Week 1 / January 17

- Introduction
- VMware Online Resources

Week 2 / January 24

- Overview of vSphere and VMs
- Types of Virtualization
- vSphere and Cloud Computing
- Physical and Virtual Architecture
- Physical Resource Sharing
- CPU virtualization
- Virtual Networking
- Physical File Systems vs. Datastores
- VM files and VM virtual hardware

Week 3 / January 31

- CPU and Memory
- Storage
- Thick and Thin Provisioning
- Virtual Networks and Network Adapters

Week 4 / February 7

- Virtual Machine's console
- Virtual Architecture
- Configuring ESXi host with root access
- SSH

Week 5 / February 14

- Configuring VMs
- Installing Guest Operating Systems
- OVF Templates
- VM Tools

Week 6 / February 21

- More on configuring VMs

Week 7 / February 28

- Configuring and using the vCenter Appliance

Last update 01/14/22

Week 8 / March 7

- Configuring and using the vCenter Appliance

Week 9 / March 14

MIDTERM REVIEW and EXAM