

Sul Ross State University
CSST 1312 System Administration/ Virtualization
Spring 2015

Instructor: Thea Glenn
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Course Description: This course provides students with the skill to perform basic operations involved in system administration. It includes installation and secure configuration of a system, addressing password policies, updates and patches, backups, port security and virtualizing operating systems. This is an online class. You will be provided all the material you need for this class. You have access to me between 10 A.M. - 9 P.M. via text and cell phone.

Equipment Required: Students must have a personal computer/laptop (with DVD Drive), DVD disk, administrative rights. Your books and Windows 7 are free this term only! You can pick up from Instructor.

Text Book (*Your books and Windows 7 are FREE this term only! You can pick them up from Instructor.*): McLean, I. 2009. *SELF-PACED TRAINING KIT (EXAM 70-680) CONFIGURING WINDOWS 7 (MCTS) (MICROSOFT PRESS TRAINING KIT)*. London : Microsoft Press

Online Resources:

BlackBoard

More information will be provided in your BlackBoard course. There will be online interaction . <http://www.sulross.edu/bb>

Virtual CloneDrive - Free

This software will be used to mount your images that are downloaded. Virtual CloneDrive use the images like they are a cd drive and can be installed from your desktop. Used with Virtual Box to install Linux Lite.

- <http://www.slysoft.com/en/virtual-clonedrive.html>

Virtual Box - Free

This software is used to virtualize operating systems on your computer without the hassle of installing another operating system on another section of your hard drive.

- <https://www.virtualbox.org/wiki/Downloads>
- <https://www.virtualbox.org/manual/ch01.html>

- <https://www.virtualbox.org/manual/ch02.html>

Linux Lite - Free

- <https://www.linuxliteos.com/>
- <https://www.linuxliteos.com/download.html>
- <https://www.linuxliteos.com/manual/install.html>

Windows Automated Installation Kit for Windows 7(AIK) includes - Free:

- <http://technet.microsoft.com/en-us/library/dd349343.aspx>
 - Deployment Image Servicing and Management (DISM) tool
 - Windows System Image Manager (SIM)
 - OSDIMG, BCDBoot, DISMAPI, WIMGAPI, and other tools and interfaces

Course Objectives: By the end of the course, the successful student will be able to:

- Apply the knowledge gained to successfully install, securely configure, operate and maintain a commodity OS in a virtual environment.
- Set up user accounts
- Manage Devices, Disks, and Applications
- Configure appropriate authentication policies
- Configure audit capabilities
- Perform back-ups
- Install patches and updates
- Review security logs
- Restore the system from a backup

Requirements:

- Have a laptop/desktop and an internet connection. Your computer must have a minimum of system requirements of:
 - o Permission to install Windows 7 (If done properly no data will be lost on your drive)
 - o 1 gigahertz (GHz) or faster 32-bit (x86) or 64-bit (x64) processor
 - o 1 gigabyte (GB) RAM (32-bit) or 2 GB RAM (64-bit) (preferably 4GB or more)
 - o 30 GB available on your computer hard disk
 - o DirectX 9 graphics device with WDDM 1.0 or higher driver
 - o R/W DVD disk
- Have a thumb drive or an external hard drive 4 GB's or more to back up your data.
- Log into Blackboard weekly. Especially on Fridays.

- Have books and materials for the first day of class.
- Please note this is a fast pace course. Do not fall behind! Catching up will be more work than just doing it when it's required.
- All test and discussion questions will be completed in Black Board.
- All assignments will be turned in via Black Board unless otherwise noted.
- Please do not hesitate to request help on the material.
- No questions are stupid!
 - o Others may have the same question in which case I will post the questions anonymously with the answer for anyone who may have the same question.

See your instructor promptly if you are having problems with your course work or are in need of special assistance.

Class Attendance: This is an online class. Your attendance is based on your homework you turn in online and logging into BlackBoard a minimum of once a week. More often is best!

Grading: This class is dependent on your class projects and midterm. Your final project is your final. Please let me know right away if you are having trouble with your assignments.

Virtual Box and Linux Lite Project	= 200
Configuring Windows 7 Chapters 1-5 and Midterm	= 300
Configuring Windows 7 completed project (1-14)	= <u>500</u>
Total	1000

- A 900 - 1000**
- B 899 - 800**
- C 799 - 700**
- D 699- 600**
- F 599 and below**

Tentative Schedule: This is a tentative schedule and is subject to change as the instructor deems necessary. Exercises will be explained in BlackBoard.

DUE DATE		Virtual Box		Points	
1-Feb		Read how to Install Virtual Box	Read 1.1-1.16	Reading and exercise	
1-Feb		Set up Linux Light Virtual Box	Read , 2.1.1-2.1.2 Link is under Section1.5	Reading and exercise	
1-Feb		Starting Virtual Box	1.6	Exercise	
1-Feb		Linux Lite			
1-Feb		Read Linux Lite web page		Read the website	
1-Feb		Preparing your Computer for the Installation	Installing Linux Lite to your computer	Reading and exercise	
1-Feb		Installing Linux Lite in Virtual box		Reading and exercise	
1-Feb		Menus		Reading and exercise	
1-Feb		Software & Updates			
1-Feb		Hardware			Total points 200
Date		Windows			
8-Feb	1	Install Windows 7 in Virtual Box	Learning how to install Windows 7 as a virtual drive	Reading and exercises	Pay special attention to p. 17. You all will be performing a dual-Boot on your system.
15-Feb	2	Configuring system images	Read chapter exercises.	Reading and exercises	

22-Feb	3	Deploy system images		Reading and exercises	
1-Mar	4	Managing Devices and Disks		Reading and exercises	
8-Mar	5	Managing Applications	Midterm	Reading and exercises	Ch 1-5 & Midterm 300 Points
15-Mar	6	Network Settings		Reading and exercises	
22-Mar	7	Windows Fire wall and remote Management		Reading and exercises	
29-Mar	8	Branch Cache and resource sharing		Reading and exercises	
5-Mar	9	Authentication and account control		Reading and exercises	
12-Apr	10	Direct Access VPN		Reading and exercises	
19-Apr	11	BitLocker and Mobility Options		Reading and exercises	
26-Apr	12	Windows Update and Windows IE		Reading and exercises	
3-May	13	Monitoring performance		Reading and exercises	

10-May	14	Recovery and Backup		Reading and exercises	
Complete chapters due on or before 8 May 2015. Total points for Ch 6-14 =					500 points
Total Points for all Projects					1000 Points

Disability Support Policy Statement: If you anticipate the need for reasonable accommodations to meet the requirements of this course, you must register with the office of Disability Support Services in order to obtain the required official notification of your accommodation needs. Please plan to meet with me by appointment or during office hours to discuss approved accommodations and how my course requirements and activities may impact your ability to fully participate.

Academic Dishonesty: Honesty in completing assignments is essential to the mission of the university and to the development of the personal integrity of the student. Cheating, plagiarism, or other kinds of academic dishonesty will not be tolerated! Academic dishonesty will result in appropriate sanctions that may include failing an assignment, failing the class, or being suspended or expelled. Suspected cases in this course may be reported to Student Life

Accommodations: It is Sul Ross State University policy to provide reasonable accommodations to students with documented disabilities. If you would like to request such accommodation because of a physical, mental or learning disability, please contact the ADA Coordinator in the Counseling and Accessibility Services Office, Ferguson Hall 112, or phone 432-837-8203.