Resources

- **CIT VM Farm**
  - Create VM and connect from osx/Linux
  - Manage VMs with CLI instead of Web
  - Connect to vm from Linux host
- **AWS**
  - Create AWS Educate Account
  - Create EC2 instance
  - Connect EC2 instance
- **Software**
  - If you are using windows to connect to your vm, you might need the following:
    - Putty
    - TightVNC
  - If you have a newer version of windows 10 and have installed the linux subsystem, you can just ssh from the command line like you do in OSX and Linux.

## Week 1 (Jan 11,13)

- **Slides**
  - DHCP Slides
- **Readings**
- **Lectures**
  - DHCP Lecture
  - Bionic Networking
  - Wireshark DHCP Capture
- **Screenshots/Helps**
  - DHCP Dynamic
  - DHCP Fixed
  - DHCP Dynamic Client
- **Assignment**
  - Hosts

## Week 2 (Jan 20)

- **Slides**
  - NFS Slides
  - PXE Boot
  - Kickstart
- **Reading**
- **Lectures**
- **Screenshots/Helps**
  - NFS How To
  - kickstart
  - tftp and Netboot
- **Assignment**
  - DHCP

## Week 3 (Jan 25, 27)

- **Slides**
  - Diskless
** Week 4 (Feb 1, 3) **

** EXAM 1 **

- ** Slides **
- ** Reading **
- ** Lectures **
- ** Screenshots/Helps **
  - Review
  - Capture image fog video old video
  - Deploy image fog video
- ** Assignment **
  - DHCP 2 - netboot/kickstart
  - Diskless Boot
  - FOG

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** Week 5 (Feb 8, 10) **

- ** Slides **
  - Shell 1
  - StdOut
  - StdIn
  - Command Execution
  - Variables
- ** Reading **
  - Shell review
  - stdout review
  - stdin review
  - executing commands
- ** Lectures **
- ** Screenshots/Helps **
- ** Assignment **
  - Bash on Windows

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** Week 6 (Feb 17) **

- ** NO CLASS FEB 15 **

- ** Slides **
  - Logic
  - Sed/Awk

- ** Reading **
  - Variables
  - Shell logic and arithmetic
  - A better one on logic
  - Recommended on brackets
  - AWK, SED - Read 7.10-7.11
Lectures
Screenshots/Helps
  • SSH As root
Assignment
  • Shell Script 1
  • Shell Script 2

Week 7 (Feb 22, 24)

  • Slides
    • Regex
    • Shell Features
  • Reading
    • Additional Scripting
    • Shell Speed
    • Shell troubleshooting
  • Lectures
  • Screenshots/Helps
  • Assignment
    • Shell Script 3
    • Regex

Week 8 (Mar 1, 3)

  • Slides
  • Reading
    • Quick Shell
    • Troubleshooting
  • Lectures
  • Screenshots/Helps
    • Sample scripting exam
    • Sample solution other
  • Assignment
    • Shell Script 4
    • Shell Script 5

TEST 2

Week Mar 7-13

SPRING BREAK

Week 9 (Mar 15, 17)

  • Slides
    • Terraform
    • Terraform2
    • Terraform3
  • Reading
    • Read chapter 2 in “Terraform up and running 2nd edition” found on Oreilly (safarionline) from library.dixie.edu website.
  • Lectures
    • Review AWS
    • Infrastructure as Code
    • Terraform
Week 10 (Mar 22,24)

- Slides
  - Automation with Ansible
  - Ansible Playbooks
  - Ansible Playbooks 2

- Reading
  - Ansible variables

- Lectures
  - Configuration management with Ansible

- Screenshots/Helps

- Assignment
  - Ansible 1
  - Ansible 2

Week 11 (Mar 29,31)

- Slides
  - Ansible Roles
  - Ansible Advanced stuff

- Reading

- Lectures
  - Ansible Roles
  - Example of Roles

- Screenshots/Helps

- Assignment
  - Ansible 3

Terraform and Ansible Exam

Week 12 ( Apr 5,7)

- Slides
  - Python

- Reading

- Lectures
  - Python video slide lecture

- Screenshots/Helps
  - Python example

- Assignment
  - Python
Week 13 (Apr 12,14)

- Slides
  - Salt
- Reading
  - Salt states
  - Basic usage
  - More complex states
- Lectures
  - Installing saltstack
- Screenshots/Helps
- Assignment
  - Salt 1

Week 14 (Apr 19,21)

- Reading
- Lectures
  - Salt 1
  - Salt 2
- Screenshots/Helps
  - Salt example file
- Assignment
  - Salt 2
  - Salt 3

Week 15 (Apr 26,28)

- SALT
- REVIEW
- EXAM