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
**Reading**

**Lectures**

**Screenshots/Helps**
- Dual netboot
- Create an Initial ramdisk
- Use debootstrap to create a disk image
- FOG

**Assignment**
- NFS 1

---

**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

---

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

**Slides**
- Shell 1
- StdOut
- StdIn
- Command Execution
- Variables

**Reading**
- Shell review
- stdout review
- stdin review
- executing commands

**Lectures**
- Sample files

**Screenshots/Helps**

**Assignment**
- Bash on Windows

---

**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
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