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

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**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
  ▪ Sample files
• 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

Screenhots/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

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

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Week 14 (Apr 19-21)

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

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Week 15 (Apr 26-28)

- SALT
- REVIEW
- EXAM