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.

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**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

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**Week 2 (Jan 20)**

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

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**Week 3 (Jan 25, 27)**

- **Slides**
  - Diskless
**FOG**

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

**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

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

**Lectures**

**Week 6 (Feb 17)**

**NO CLASS FEB 15**

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

**Reading**

**Variables**
- Shell logic and arithmetic
- AWK, SED - Read 7.10- 7.11

**Lectures**
- Screenshots/Helps
  - SSH As root

- Assignment
  - Shell Script 1
  - Shell Script 2

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**Week 7 (Feb 22,24)**

- Slides
  - Regex
  - Shell Features
- Reading
  - Additional Scripting
- Lectures
- Screenshots/Helps
- Assignment
  - Shell Script 3
  - Regex

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**Week 8 (Mar 1, 3)**

- Slides
  - Shell Speed
  - Shell Speed
- Reading
  - Quick Shell
  - Troubleshooting
- Lectures
- Screenshots/Helps
  - Sample scripting exam
- Assignment
  - Shell Script 4
  - Shell Script 5

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**Week Mar 7-13**

SPRING BREAK

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**Week 9 (Mar 15,17)**

TEST 2

- Slides
- Reading
- Lectures
  - Review AWS
  - Infrastructure as Code
  - Terraform
- Screenshots/Helps
- Assignment

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**Week 10 (Mar 22,24)**

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

• Reading
• Lectures
  • Configuration management with Ansible

• Screenshots/Helps
• Assignment
  • Ansible 1
  • Ansible 2

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**Week 11 (Mar 29,31)**

• Slides
  • Ansible Roles
• Reading
• Lectures
  • Ansible Roles
  • Example of Roles
• Screenshots/Helps
• Assignment
  • Ansible 3

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Ansible Exam

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**Week 12 (Apr 5,7)**

• Slides
  • Python
• Reading
• Lectures
  • Python video slide lecture
• Screenshots/Helps
  • Python example
• Assignment
  • Python

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**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