IT 3110: Systems Automation

Spring 2019 Schedule

Week 1 (Jan 6 - 10)

- Slides
  - Logger Slides
  - DHCP Slides
- Readings
- Lectures
  - DHCP Lecture
  - Bionic Networking
- Screenshots/Helps
  - Syslog Server
  - Syslog Client
  - Syslog Filters
  - Log Rotate
  - DHCP Dynamic
  - DHCP Fixed
  - DHCP Dynamic Client
- Assignment
  - Hosts
  - Logger

Week 2 (Jan 13 - 17)

- Slides
  - NFS Slides
- Reading
- Lectures
- Screenshots/Helps
  - NFS How To
- Assignment
  - DHCP

Week 3 (Jan 20 - 24)

- NO CLASS ON JAN 20
- Slides
  - PXE Boot
  - Kickstart
  - Diskless
- Reading
- Lectures
- Screenshots/Helps
  - Diskless boot = Note that instead of using the cp command as outlined in the screenshots, you can use the debootstrap command as shown in the diskless assignment instructions.
  - Netboot
  - kickstart
  - FOG
- Assignment
  - NFS 1

Week 4 (Jan 27 - Jan 31)
**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 3 - Feb 7)**

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

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**Week 6 (Feb 10 - 14)**

- 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 17 - 21)**

- NO CLASS FEB 17
- Slides
  - Regex
**Week 8 (Feb 24 - Feb 28)**

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

**Week 9 (Mar 2 - 6)**

TEST 2

- **Slides**
  - Automation with Ansible
  - Ansible Playbooks
- **Reading**
- **Lectures**
- **Screenshots/Helps**
- **Assignment**

**Week 10 (Mar 9 - 13)**

- **Slides**
  - Ansible Playbooks 2
- **Reading**
- **Lectures**
- **Screenshots/Helps**
- **Assignment**
  - Ansible 1
  - Ansible 2

**Week 11 (Mar 16 - 20)**

SPRING BREAK
Week 12 (Mar 23 - 27)

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

Ansible Exam

Week 13 (Mar 30 - Apr 3)

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

Week 14 (Apr 6 - 10)

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

Week 15 (Apr 13 - 17)

- Reading
- Lectures
  - Salt 1
  - Salt 2
- Screenshots/Helps
  - Salt example file
- Assignment
  - Salt 2
  - Salt 3
Week 16 (Apr 20 - 22)

- SALT
- REVIEW
- EXAM