Schedule and outline

Texts

- Virtualization for Dummies (Dummies)
- Xenserver Administration Handbook
- ESXi Documentation from VMware
- Learning VMware Vsphere (LVV)

Week 1

Topics:
- Hypervisors
- Types of virtualization

Readings:
- Dummies chapter 1, 3
- Explained by vmware
- Intro Slides
- More Slides
- ESXI Install (part)
- Rufus
- Assignment

Week 2

- ESXI and VMWare
  - Installation
- Readings:
  - LVV chapter 1
  - LVV chapter 2
  - LVV chapter 5
- Slides
- Connect ISO to esxi
- Assignment

Week 3

- NFS on Ubuntu How To
- VMWare Server Appliance
  - Installation
- Readings:
  - LVV chapter 6
  - LVV chapter 3
  - create cluster
  - add host to cluster
  - Move hosts to cluster
  - Create cluster datastore
- Slides - Install VCSA
- Slides - VCSA Objects
- Assignment
- Assignment
Week 4

- Virtual Machines
- Readings:
  - LVV Chapter 8
- My how-tos:
  - Create virtual machine using vcsa
  - Install VMware Tools Linux
- Slides
- Slides
- Assignment

Week 5

- Readings:
  - LVV Chapter 4
  - Networking concepts overview
  - vSphere Standard Switches
  - vSphere Distributed Switch Architecture
- My how-tos:
  - Create an eSXI port group and new vswitch video
  - Add a vm to a vSwitch
  - Create distributed switch video video2
  - Enable vmotion
- Assignment
- Assignment
- Slides

Week 6

- Readings:
  - Storage overview
  - DRS Settings
- Slides
- Slides
- Assignment

Week 7

- Slides
- Kahoot review
- Exam on VMWare (Testing Center)
- Topics:
  - Virtualization with Proxmox
- Assignment

Week 8

- Topics:
  - Virtualization with Proxmox
  - Containers (LXC with Proxmox)
- Readings:
  - LXC vs Docker
- Assignment
- Slides
- Fall Break
Week 9

- Topics:
  - Docker
- Readings:
  - Chapter 1
- Assignment
- Assignment
- Assignment
- Slides
- Slides
- Slides

Week 10

- Topics:
  - More Docker
- Readings:
  - Entrypoint vs CMD
  - Chapter 3
  - Basic container networking
- Assignment

Week 11

- Test 2
- Topics:
  - Kubernetes
demo
- Readings:
  - K8S tutorial
  - Working with Kubernetes Objects
- Slides
- Slides
- Assignment
- Assignment

Week 12

- Topics:
  - Kubernetes on GCP
  - Kubernetes
- Slides
- Assignment

Week 13

- Topics:
  - More kubernetes
- Assignment

Thanksgiving

Week 14

- Topics:
  - More kubernetes
Week 15

- Monday - catch up
- Wed - Practical (test4)
- Fri - Canvas (test4)

We will have presentations on the day of the final.