Schedule and outline

**Texts**

- Virtualization for Dummies (Dummies)
- ESXi Documentation from VMware
- Learning VMware Vsphere (LVV)
- Proxmox Admin guide (PX)

**Week 1**

- **Topics:**
  - Hypervisors
  - Types of virtualization
  - Virtualization with Proxmox
  - connect iso to proxmox
  - Virtual Machines
- **Readings:**
  - Dummies chapter 1,3
  - PX 1, PX 2.3.1, 2.3.2
  - Explained by vmware
- **Slides:**
  - Intro Slides
  - More Slides
  - Proxmox Chapter 1
- **Notes:**
  - Movie - Connect to proxmox with tunnel from mac/linux
  - Movie - install vm
- **Assignments:**
  - Assignment
  - Also begin project 2

**Week 2**

- **Topics:**
  - More on VMs
  - NFS and proxmox
  - Clustering
- **Readings:**
  - PX 5 (Explanation of the GUI) (review if needed)
  - PX 10
- **Slides:**
  - Proxmox Chapter 10
- **Notes:**
  - FreeNas Install
  - FreeNas NFS
  - FreeNas networking
- **Assignments:**
  - Assignment
  - Assignment

**Week 3**

- **Topics:**
  - Clustering
  - High availability
- **Readings:**
  - PX 6
- **Slides:**
Week 4

- Topics:
  - Finish up, Proxmox exam
  - Review
- Readings:
  - Proxmox 8
- Assignments:
  - Assignment

Week 5

- Virtual Machines
- Readings:
  - LVV chapter 2
  - LVV chapter 5
  - LVV chapter 6
- My how-tos:
  - Install ESXi
  - Connect to ISO
  - Install VMware Tools Linux
- Slides:
  - ESXi review
  - VMware VCSA
- Assignments:
  - Install Esxi

Week 6

- Readings:
  - LVV chapter 3
  - LVV Chapter 8
- Slides:
  - VCSA Objects
  - VMware machines
- My How To’s:
  - create cluster
  - Mount more hosts to nfs
  - Create vms on VCSA
  - Enable DRS
- Assignments:
  - Install VCSA
  - Create templates

Week 7

- Readings:
  - LVV Chapter 4
  - Networking concepts overview (recommended)
  - vSphere Standard Switches (recommended)
  - vSphere Distributed Switch Architecture
Week 8

- Kahoot review
- Exam on VMWare (Testing Center)
- Fall Break

Week 9

- Topics:
- Readings:
  - LXC vs Docker
  - Slides
  - 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
Week 12

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

Week 13

- Topics:
  - More kubernetes
- Assignment

Thanksgiving

Week 14

- Topics:
  - More kubernetes
  - K8s yml files
  - virtualbox?
- Slides
- Assignment

Week 15

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

We will have presentations on the day of the final.