Schedule and outline

Texts

- [Virtualization for Dummies](Dummies)
- [ESXi Documentation from VMware](https://www.vmware.com)
- [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](https://www.vmware.com)
- Slides:
  - [Intro Slides](https://www.vmware.com)
  - [More Slides](https://www.vmware.com)
  - [Proxmox Chapter 1](https://www.vmware.com)
- Notes:
  - [Movie - Connect to proxmox with tunnel from mac/linux](https://www.vmware.com)
  - [Movie - install vm](https://www.vmware.com)
- Assignments:
  - [Assignment](https://www.vmware.com)
  - 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](https://www.vmware.com)
- Notes:
  - [FreeNas Install](https://www.vmware.com)
  - [FreeNas NFS](https://www.vmware.com)
  - [FreeNas networking](https://www.vmware.com)
- Assignments:
  - [Assignment](https://www.vmware.com)
  - [Assignment](https://www.vmware.com)

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
  - LVV Chapter 4
  - vsphere Distributed Switch Architecture
  - DRS
- Slides:
  - VCSA Objects
  - VMWare machines
  - Virtual Network
  - Distributed switch
  - DRS
  - High Availability
- My How To’s:
  - create cluster
  - Mount more hosts to nfs
  - Create vms on VCSA
  - Enable DRS
  - Create an eSXI port group and new vswitch video
  - Create distributed switch
  - Enable vmotion
- Assignments:
  - Install VCSA
Week 7

- Exam on VMWare (Testing Center)
- Topics:
  - containers
  - docker
- Readings:
  - LXC vs Docker
  - Chapter 1
- Slides:
  - Containers
  - Docker 1
  - Docker 2
  - Docker 3
- Assignments:
  - Docker - hello
  - Docker - identidock
  - Docker - webapp

Week 8

- Topics:
  - More Docker
- Readings:
  - Entrypoint vs CMD
  - Chapter 3
  - Basic container networking
- Assignments:
  - Docker - Mysql Apache

Week 11

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

Week 12

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

Week 13
Topics:
  - More kubernetes
  - Assignment

**Thanksgiving**

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**Week 14**

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

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**Week 15**

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

We will have presentations on the day of the final.