

# Content 2021

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## Resources

- **CIT VM Farm**
    - [Create VM and connect from osx/Linux](#)
    - [Gpt partition example](#) (Not needed for first lab)
    - [MBR partition example](#)
    - [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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## Module 1 - Partitioning

- **Slides**
    - [Intro Slides](#)
  - **Reading**
    - [Tracks and Sectors](#)
    - [Overview of hard drives](#)
    - [SSDs](#)
    - [Nand memory](#)
    - [MBR Overview](#)
  - **Lectures**
    - [Finish remainder of intro slides](#)
    - [Dos Partitioning Video](#)
    - [Partitioning Explained](#) (Only the first 5 minutes)
  - **Screenshots**
    - [More partitioning help](#)
    - [Bionic partitioning video](#)
  - **Lab**
    - [System Install](#)
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## Module 2 - Filesystems and Inodes

- **Slides**
  - [Slides 2](#)(These are referenced in some of the videos)
- **Reading**
  - [Filesystem](#) Sign in first. Read the following pages: Filesystem-high level view, metadata, inode, data block map, Directories, Superblock, Mount and Unmount operations, File creation and Deletion operations. To sign in, go to [library.dixie.edu](http://library.dixie.edu) and click on [ebook collections](#).
  - [Superblock definition](#)
- **Lectures**
  - [Inode linking Video](#)
  - [More about Inodes Video](#)
  - [Directories and Inodes Video](#)
  - [Mebibyte vs Megabyte Video](#)
  - [Partition and block discussion](#)
- **Screenshots**
  - [Creating a filesystem](#)

- [Creating a filesystem 2](#)
  - [Resize FS with parted](#)
  - **Lab** [More partitions and EXT](#)
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## Module 3 - EXT

- **Slides**
    - [Slides 3](#)
  - **Reading**
    - [Ext](#)(somewhat of a review)
  - **Lectures**
  - **Screenshots**
    - [Resizing](#)
    - [Break Superblock](#)
    - [Orphan Inode](#)
    - [Corrupt Inode](#)
    - [Break Permissions](#)
  - **Lab** [Resize EXT](#)
  - **Lab** [Fix EXT](#)
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## Module 4 - Raid

- **Slides**
    - [Raid Slides](#)
  - **Reading**
    - [Raid](#)
    - [Software raid cheatsheet](#)
  - **Lectures**
    - AWS Review
    - [Aws attach disks](#)
    - [AWS mdadm ec2 sample](#)
  - **Screenshots**
    - [My Software raid howto](#)
  - **Lab** [Raid Report](#)
  - **Lab** [Software Raid](#)
  - **EXAM 1** [review](#)
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## Module 5 - LVM

- **Slides**
    - [LVM Slides](#)
  - **Reading**
    - [Logical volumes](#)
    - [LVM Intro](#)
    - [LVM cheatsheet](#)
  - **Lectures**
  - **Screenshots**
    - [LVM During Install How To](#)
    - [Bionic basic lvm install](#)
    - [LVM Configure](#)
    - [Bionic extension](#)
  - **Labs**
    - [LVM 1](#)
    - [LVM 2](#)
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## Module 6 - Remote Filesystems

### ISCSI & NFS

- **Slides**
    - [NFS Slides](#)
  - **Reading**
  - **Lectures**
    - [ISCSI overview](#)
  - **Screenshots**
    - [NFS Install How To](#)
    - [ISCSI AWS 2021](#)
  - **Labs**
    - [NFS](#)
    - [ISCI](#)
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## Module 7 - GPT/UEFI

- **Slides**
    - [UEFI and GPT Slides](#)
  - **Reading**
    - [UEFI Boot](#)
    - [GPT Overview](#)
    - [Good Overview of Parted](#)
    - [GPT Partitioning](#)
  - **Lectures**
  - **Screenshots**
    - [UEFI Install Screens](#)
    - [UEFI comands](#)
  - **Labs**
  - **EXAM 2** [review](#)
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## Module 8 - Windows

- **Slides**
    - [FAT](#)
    - [NTFS](#)
  - **Reading**
    - [FAT](#) (follow all the links on that page)
    - [NTFS](#)
    - [MORE NTFS](#)
  - **Lectures**
  - **Screenshots**
  - **Labs**
    - [FAT](#)
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## Module 9 - BTRFS?

- **Slides**
  - [btrfs](#)
- **Reading**
  - [Snapshots with snapper](#)
- **Lectures**

- **Screenshots**
  - **Labs**
    - [btrfs](#)
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## Module 10 - Forensics

- **Slides**
    - [forensic](#)
  - **Labs**
    - [Forensic](#)
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## Module 11 - Cloud Storage

- **Slides**
    - [S3](#)
    - [EFS](#)
    - [EBS](#)
  - **Reading**
    - [S3](#)
    - [EFS](#)
    - [EFS when](#)
  - **Lectures**
  - **Screenshots**
  - **Labs**
    - [AWS S3](#)
    - [AWS EFS](#)
    - [AWS EBS](#)
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## Module 12 - Misc

- **Slides**
    - [SMB](#)
    - [Windows encryption](#)
    - Encryption
    - chroot & resurrecting from a broken fstab
  - **Reading**
    - [Linux quotas](#)
    - [EFS on windows](#)
  - **Lectures**
    - [Windows and Linux filesharing](#)
  - **Screenshots**
  - **Labs**
    - [Linux quotas](#)
    - [Windows fileshares to linux](#)
  - **EXAM 3** [review](#)
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## Student presentations

- [Description](#)
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## Last project

- [Description](#)