澳 門 理 工 學 院
Instituto Politécnico de Macau
Macao Polytechnic Institute

COMP 225: Network and System Administration
Notes #0: Course Logistics

K. L. Eddie Law, PhD

Associate Professor

Computing, MPI

Academic Year 2nd Semester, 2019-2020

About the Course

- Network and system administrations are increasingly complex and essential fields in the information technology industry
- Aims at building up knowledge in the administration of network environment
- Roughly to cover
  - Linux environment installation, system administration, network services, Internet services, system maintenance, and system security, etc.

Learning Objectives

- Recognize different important Linux system commands and their usages
- Identify and recognize principles and importance of network administration in engineering practice
- Operate and manipulate under Linux environment using shell scripts from technical manuals or other information sources
- Configure and manage network components like DHCP, SSH and Firewalls
- Construct and setup a secure network for organizations
- Identify and recognize the principles of base network protocols
- Construct and configure different virtual environment of various Linux distributions

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Typical Topics

- Overview of system administration and Linux system
- Linux installations
- Basic Linux environment (Bash)
- Administration and management tasks

- TCP/IP networking
- DHCP, telnet (insecure) and SSH
- Samba and file sharing
- FTP (insecure), sftp and scp
- Firewall
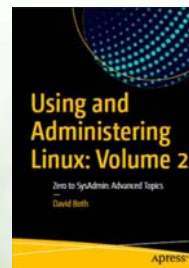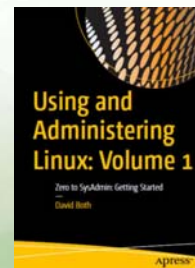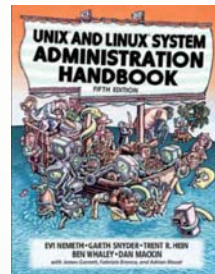- Web server

Course Logistics

- Instructor: K. L. Eddie Law
- Office: M541
- Email: eddielaw@ipm.edu.mo
- Office hours:
  - Mondays, 4:30 – 6:30pm
  - Tuesdays, 4:30 – 6:30pm
  - Thursdays, 4:30 – 6:30pm

- Many thanks to the courtesy of Dr. Yapeng Wang
  - Most slides based on his notes
- 14-week lecture schedule
  - Class A: Mon 2:30 – 4 pm, A202
    & Thurs 2:30 – 4 pm, A205
  - Class B: Tues 2:30 – 4 pm, A202
    & Thurs 11:30 am – 1 pm, A202

Course Works and Mark Distribution

- 10 to 11 in-class labs, one per topic
- 2 to 3 homework assignments (25%)
- 1 mid-term test (25%)
  - Around Week #8
- Final exam (50%)

Textbook and References

- Textbook
  - Mackin, D. (2017). *UNIX and Linux System Administration Handbook, 5th edition*. Pearson Education.
- References
  - Both, D. (2020). *Using and Administering Linux: Volume 1 – Zero to SysAdmin: Getting Started*. Apress.
  - Both, D. (2020). *Using and Administering Linux: Volume 2 – Zero to SysAdmin: Advanced Topics*. Apress.

Questions?