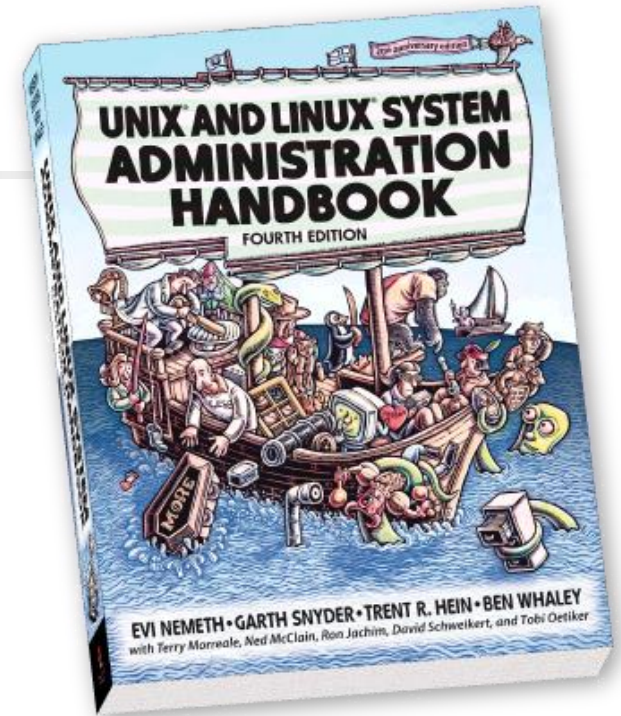# Network Administration

hmwang

# Syllabus

❑ Website:
  - e3.nctu.edu.tw
❑ Instructor:
  - 王宣閔
  - 吳宗翰
❑ Time:
  - Thu. IJK (PM 6:30 ~ 9:20)
❑ Place:
  - EC114
❑ English Slides and Exams, Chinese Lecture (TAs can support)
❑ TAs:
  - Email to TAs: ta@nasa.cs.nctu.edu.tw
  - IRC channel #nctuNASA on freenode → for interactive experience
  - Newsgroup cs.course.sysadmin → for longer discussion, and also for your classmates.
  - BBS bs2.to board CS-NetAdmin
❑ 資安學程 http://isc.cs.nctu.edu.tw/
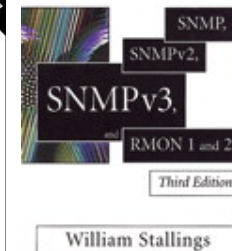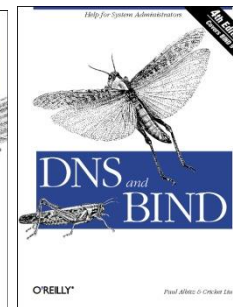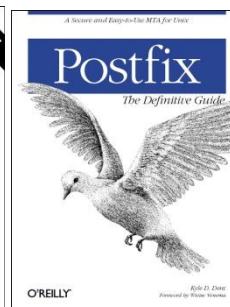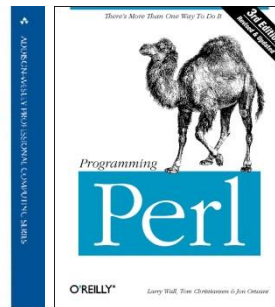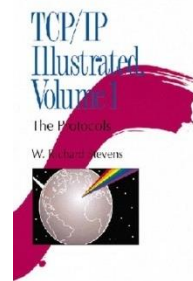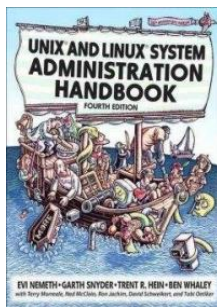❑ 大學部雲端系統學分學程 http://delta.nctu.edu.tw/

# Syllabus –
## Course Textbook and Reference

❑ Textbook

- UNIX and Linux System Administration Handbook, 4th ed.
- Slides

❑ Reference book

- TCP/IP Illustrated Volume 1
- Programming Perl
- Postfix
- DNS and BIND
- SNMP, SNMPv2, SNMPv3 and RMON 1, 2

# Syllabus –
## Course Overview

❑ Main topics

- Perl Programming & Python Programming
- Networking
  - ➤ TCP/IP Networking
  - ➤ Network Environment
  - ➤ NAT, DHCP, Firewall, FTP, VPN, Proxy, …
- DNS – BIND (Berkeley Internet Name Domain)
- Mail System -- Postfix
  - ➤ SPF (Sender Policy Framework)
  - ➤ DKIM (DomainKeys Identified Mail)
  - ➤ …
- PGP (Pretty Good Privacy)
- Usenet News – INN (InterNetNews)
- Network Management

# Syllabus – Grade Policy

❑ Mid
- 20%

❑ Final
- 20%

❑ Exercise
- 60 ~ 72%
  - ➢ No Delay Work
  - ➢ 5 exercises

# Syllabus –
## Prerequisite

❑ Background Knowledges

- It is better to have taken
  - ➢ "System Administration" (計算機系統管理)
  - ➢ "Introduction to Networking" (計算機網路概論)
- At least
  - ➢ Experience of using Unix-like environment

❑ Environment

- One dedicated PC (Or dual OS in your PC, VM is also accepted.)
  - ➢ With Unix-like OS installed (e.g. FreeBSD, Linux, Sun OS, …etc.)
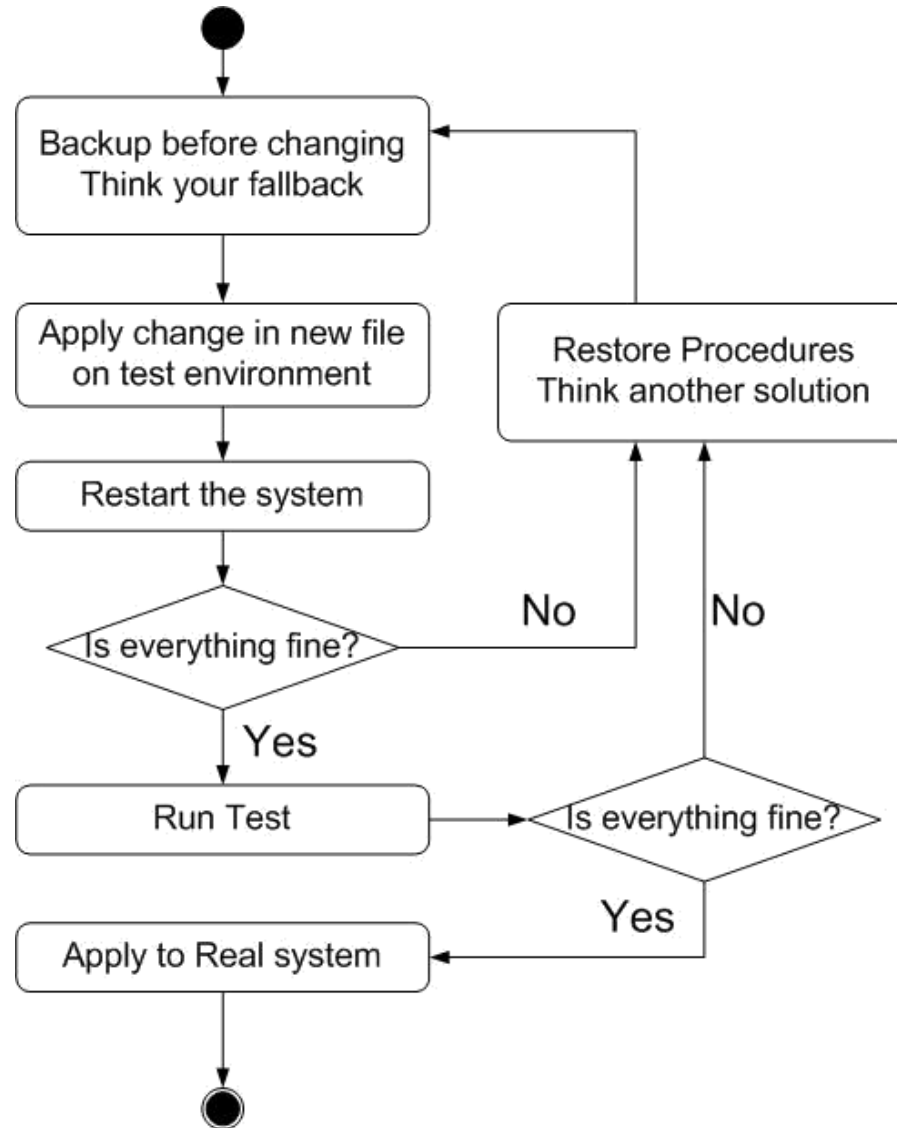  - ➢ FreeBSD is recommended for the reason: TA supports.

# Attitude

❑ Attend every class

❑ Do every exercise

- As <span style="color:red">early</span> as possible

- <span style="color:red">On your own</span>

❑ Read book and practice at least 6 hours every week

- Use unix-like environment

- Recommend: more than 1.5 hours/day averagely.

❑ Collect information on the internet

- The newer, the better.

# When You Perform Any Changes…

❑ Flow of Change

# SA-NA Junction

❑ FreeBSD

- 10.1-RELEASE
  - ➢ ftp://ftp.freebsd.org/pub/FreeBSD/releases/ISO-IMAGES/10.1/

# We Want You!