



國立陽明交通大學資訊工程學系資訊中心

IT Center of Department of Computer Science, National Yang Ming Chiao Tung University

Network Administration Practice

Syllabus (2026 Spring)

Meng-Hsun Tsai (蔡孟勳)

The Romance of a Network Administrator



Source: <https://twitter.com/realvictrid/status/1758795387052360054?s=46&t=e>

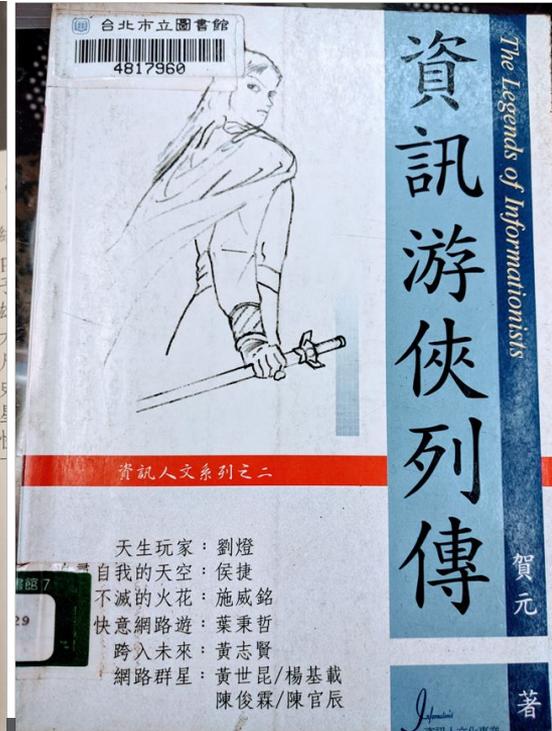
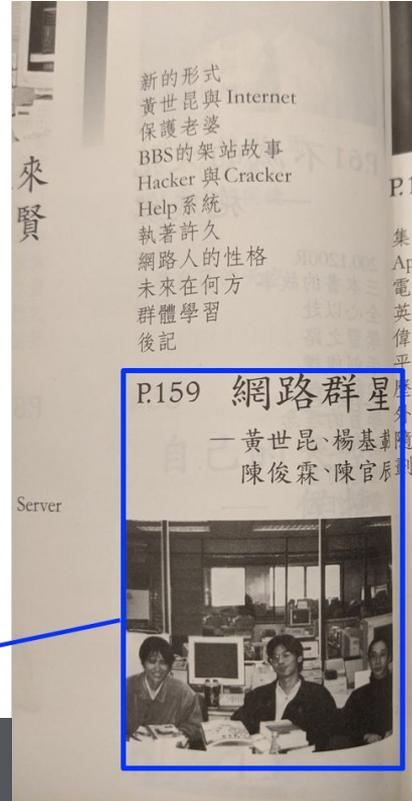
Why this course?

- NYCU CS has the only one “complete” departmental information technology center (called NYCU CSIT; a.k.a. computer center) in Taiwan.
- To cultivate professionals capable of operating CSIT, we offered two elective courses since 1996 (NCKU 2012-2022, NTU 2014-, NTHU 2019-) :
 - **Computer System Administration/System Administration Practice (Fall semester)** introduces basic **Unix system administration** skills, primarily in a **one-server scenario**.
 - **Computer Network Administration/Network Administration Practice (Spring semester)** introduces advanced skills to operate the **entire information technology center** with **multiple servers and network equipment**.

NYCU CSIT - one of the main origins of Taiwan's Internet startups

- Wretch (無名小站)
- PIXNET (痞客邦)
- funP (雲沛創新集團)
- Appier (沛星互動科技)
- KKTix
- InfuseAI
- MeetAndy AI
- ...
- ...

Photo taken
at NYCU CSIT



NASA = SA + NA

NASA Course Website

Computer System and Network Administration, NYCU CSCC

[HOMEPAGE](#)

[COURSES](#)

[PROGRAMS](#)

Graduate Courses

[System Administration Practice \(SAP, 2015~2017\)](#)
[Network Administration Practice \(NAP, 2015~2018\)](#)

Undergraduate Courses

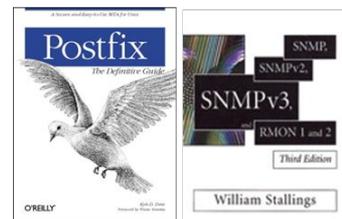
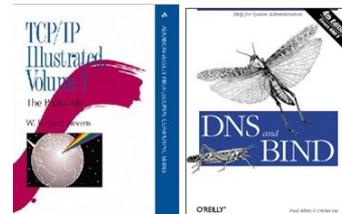
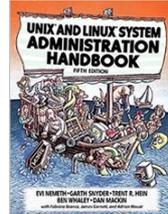
[Computer System Administration \(SA, 1996~\)](#)
[Computer Network Administration \(NA, 2009~\)](#)
[\(Computer\) Network Management \(NM, 1997~2008\)](#)

Useful Articles

[提問的智慧 \(zh-tw\)](#)
[How To Ask Questions The Smart Way \(en\)](#)

Three-year
trial for
graduates

NYCU CSCC (Computer Center, Department of Computer Science, National Yang Ming Chiao Tung University)



NYCU CSIT is powered by Open Source

- Thanks to all the open-source contributors.
- This course is supported by MoE ITSA project.
- Let me know if you have open source contribution (bonus).



Course Information

- Website: <https://site.nasa.cs.nycu.edu.tw/na/2026/course-info>
- Instructor: Meng-Hsun Tsai (蔡孟勳)
tsaimh@cs.nycu.edu.tw
- Time: M567 (Mon. 13:20 ~ 16:20)
- Place: EC114
- Lecture/Exam in Chinese
 - Not recommend for those who do not speak Chinese
- We might have about 8 TAs.
 - Email to TAs: ta@nasa.cs.nycu.edu.tw
 - Office hour: by appointment, @[CSIT](#)

Prerequisite

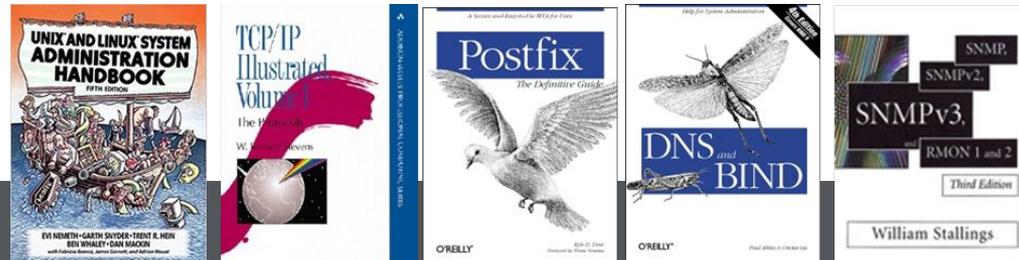
- We recommend that you should take these first
 - Computer System Administration (計算機系統管理)
 - Introduction to Networking (計算機網路概論)
- Bare metal or VM environment with Multiple Unix-like systems
 - VirtualBox or VMware
 - Up to 5 VMs running at the same time

Course Overview

- Networking
 - TCP/IP Network Environment
 - NAT, DHCP, VPN, Firewall, Load Balancer
- DNS and BIND
- Mail System and Postfix
- Network Management / Authentication / Authorization
 - LDAP
 - SNMP
 - Configuration Management (Ansible, Puppet)
- Kubernetes (New for this year)

Textbook and Reference

- Textbook
 - Unix and Linux System Administration Handbook (5th edition)
 - Course slices
- Reference book
 - TCP/IP Illustrated Volume 1
 - Postfix
 - DNS and BIND
 - SNMP, SNMPv2, SNMPv3, RMON 1 and 2



Grading Policy

- Homework (No Delay Submission)
 - Homework 1: 35%
 - DNS, Mail and LDAP
 - Homework 2: 35%
 - Kubernetes and IaC
- Final Exam
 - Paper-based (2026/6/8) : 15%
 - Computer-based (2026/6/6 or 2026/6/7): 15%

Discussion Forum

- <https://groups.google.com/g/nctunasa>
- We suggest you to join - TAs might give homework hints there
- Request join and tell us your student ID
- Ask **course-related/technical questions** there
- Everyone in the group can answer/vote
- **But DON'T post direct answer/configuration there!**
 - You will be banned

電子郵件傳送偏好設定：有新訊息時通知我 (每天最多 1 封) ▾

當我針對某個主題留言時，自動為我訂閱該主題的電子郵件更新

這個群組的其他成員可查看你的電子郵件地址，甚至也可以查看你的 Google 個人資料。加入這個群組後，你就能存取群組的共用資源。[瞭解詳情](#)。

您可以在下面的文字方塊中填入說明，將詳細資訊傳送給管理員。

我是108下學期NA的修課生曾亮齊，學號0116057

Email Policy (IMPORTANT)

- Don't send course-related/technical questions to TAs
 - TAs won't answer you
 - Please ask them on course forum instead
- Only ask TAs for personal/non-technical questions
 - Grading
 - Office hour appointment

Some comments on the Internet

課號: 515611

選別: 選修

任課老師: 蔡孟勳

開課單位: 資工系

- 心得
 - 由系計中助教們開的課程，是上學期計算機系統管理的延伸，課程由教授上課，作業則由助教們負責。
 - 總共有四個作業，主題有 DNS、Mail、LDAP，都是把服務架起來並且符合題目要求即可，其中每個作業大約花費 20 小時至 40 小時即可完成，有些還會有加分題。
 - 期中與期末筆試都是開書考，題目類型有選擇題跟問答題，可以直接印一本課堂簡報進去考，也因此考出來的內容會比較細。至於期末爛爛的是因為算一算分數夠所以就沒特別讀跟印大抄，直接進去唸爛跟玩猜樂。
 - 與之前不同的是今年多了一個期末上機考，考試內容就是作業有做過的內容加上一些延伸。題目類型主要是設定 config 以及把壞掉的服務修好，其他則是新增一些酷酷的服務。
 - 期末上機考這次是在假日，時長 6 小時，老師會供餐給大家，吃飽飽喝好好。如果對題目有疑問也可以跟助教聊聊，有機會可以獲得一些小提示。
- 評分方式
 - HW (10%*2+20%*2)、Mid (10%)、Final1 (10%)、Final2 (20%)
 - 調分: 未公布
 - 平均: 未公布
- 成績

HW1	HW2	HW3	HW4	Mid	Final1	Final2	Total
100	100	100	100	94	67	x	A+

Source: https://blog.userwei.com/post/nycu-course-experience_113-2/

Attitude

- Attend every class
- Do every exercise (as early as possible, and **on your own**)
- Collect information on the Internet (the newer, the better)
- **Not recommended for those who have too many courses in this semester**
 - Sometimes you may spend the whole weekend to just figure out what to do in the homework
 - Loading of this course **roughly equals to 2~3 major courses**
- **You will learn a lot if you study hard!**

We are administrating the world!



2026/2/10 @ NCHC

