COMP 2013 LAN WORKSHOP

Credit Points 10

Legacy Code 300138

Coordinator Jiansheng Huang (https://directory.westernsydney.edu.au/search/name/Jiansheng Huang/)

Description This subject provides students with the knowledge and skills necessary to install, test, tune, customise, repair and maintain networking hardware and software necessary to create a Local Area Network (LAN). Students also learn how to administer a LAN by setting up user accounts, access privileges, security procedures and back-up/recovery procedures.

School Computer, Data & Math Sciences

Discipline Networks and Communications

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Equivalent Subjects LGYA 6157 Networking Workshop

Assumed Knowledge

Ability to list, discuss and compare the elements of information coding and signal transmission. List, describe and explain the elements and functional relationships of communications hardware and software. Identify, locate, distinguish and describe the individual hardware components of a personal computer (PC) and explain their purpose, functions and operations. Install PC components, devices and peripherals in accordance with installation procedures and operational standards.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Install and configure network protocols and applications according to client requirements.
2. Plan, organise and provide basic LAN systems administration and security functions.
3. Contribute to the preparation of a disaster recovery plan for a LAN and set up appropriate backup and recovery procedures.
4. Identify, diagnose, and correct network breakdowns, conflicts, errors and problems.
5. Install, connect, configure, monitor, and tune LAN systems comprising wiring, networking hardware, networking operating systems, and presentation layers.
6. Explain telecommunications systems performance measures and ensure adequate performance and reliability for a LAN.
7. Explain, install, and test networking equipement such as modems, multiplexors, ethernet components, bridges, routers, and terminal emulators.
8. Explain telecommunications requirements for transmission of voice, audio, data, still images, motion video, and multimedia.

Subject Content

- Domains, IP Addressing, Directory naming services.
- Network Addressing with subnets and host IDs using gateways, routers, and emulations.
- host machines and workstations, manual and automatic IP allocation.

- client user services and inter-application communications.
- access control and security.
- Disaster recovery planning, backup and recovery procedures.
- Network performance, Monitoring Measuring and tuning.
- Trouble-shooting, error detection, system maintenance and repair.
- Network policies, user accounts and services, Risk analysis.
- Network devices; cards, modems, multiplexors, routers, bridges, and emulators.
- Telecommunications transmission requirements, Standards, and specifications.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/Group Task	Mandatory
Participation	2 hours each class	10	N	Group/Individual	N
Quiz	70 minutes	20	N	Individual	N
Applied Project	4-week subject project	30	N	Individual	Y
Final Exam	2 hours	40	N	Individual	Y

Prescribed Texts

- Gregory Tomsho, (2020). Guide to networking essentials (8th ed.). Cengage

Teaching Periods

Sydney City Campus - Term 1 (2025)
Sydney City
On-site
Subject Contact Antoinette Cevenini (https://directory.westernsydney.edu.au/search/name/Antoinette Cevenini/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=COMP2013_25-SC1_SC_1#subjects)

Spring (2025)
Penrith (Kingswood)
On-site
Subject Contact Jiansheng Huang (https://directory.westernsydney.edu.au/search/name/Jiansheng Huang/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=COMP2013_25-SPR_KW_1#subjects)

Sydney City Campus - Term 3 (2025)
Sydney City
On-site
Subject Contact Antoinette Cevenini (https://directory.westernsydney.edu.au/search/name/Antoinette Cevenini/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=COMP2013_25-SC3_SC_1#subjects)