

COMP 7012 NETWORK MANAGEMENT

Credit Points 10

Legacy Code 300255

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Description The performance of any modern organization is heavily dependent on their networked systems and how these systems are managed. The increasing demand for ICT services and the huge growth of the Internet have resulted in large heterogeneous networks. This subject addresses the issues relevant to management of such networks and the services that run on them. It covers the principles and current practices pertinent to integrated management of networks, systems, and services. The subject helps the students to understand relevant protocols, standards, and standards organizations. It also introduces them to trends and key research areas in management of networked systems.

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 Postgraduate Coursework Level 7 subject

Pre-requisite(s) INFO 7002 Advanced Topics in Artificial Intelligence OR

COMP 7015 Programming Proficiency AND INFS 7007 System Analysis Database Management Systems OR
MATH 7012 Programming for Data Science AND MATH 7016 The Nature of Data

Restrictions

Students must be enrolled in a postgraduate program.

Assumed Knowledge

Familiar with the fundamentals of computer networking and data communications. In particular, a good understanding of the OSI model, the internet protocol suite and current internet technologies.

Learning Outcomes

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

1. Describe network management functions and architecture
2. Describe important standards and protocols for network and system management
3. Describe various management functions and applications
4. Explain important aspects of integrated management of services and applications
5. Explain the role and functions of network management software and platforms
6. Discuss the emerging trends in management of networked and distributed systems
7. Explain key research issues in management of networked systems

Subject Content

Overview of Networking and Network Management
Simple Network Management Protocol (SNMP) and Related Standards
Common Management Information Protocol (CMIP) and Related Standards
Broadband Network Management
Telecommunications Network Management
Network Management systems
Network Management Applications
Web-Based Management
Research in Network Management

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
Pop quizzes - Multiple choice or short answer quizzes based on the material covered to the point.	Short quizzes 20 during Lecture sessions. There will be 4 quizzes. Each quiz is worth 5% and will last a maximum of 10 minutes.		N	Individual
Project or Case Study - Report and its Presentation	Report 10 pages long	30	N	Group
Final Exam	Two hour, closed book written exam	50	N	Individual