

COMP 7002 ADVANCED TOPICS IN NETWORKING

Credit Points 10

Legacy Code 300252

Coordinator Seyed Shahrestani ([https://directory.westernsydney.edu.au/search/name/Seyed Shahrestani/](https://directory.westernsydney.edu.au/search/name/Seyed%20Shahrestani/))

Description This subject focuses on the advanced features of networked systems and the emerging network technologies and services. The subject provides students with an in-depth understanding of relevant protocols, the emerging standards, and standards organisations. The emphasis of the subject is on development of the student skills to enable them to do proficient research and development works and studies in the computer networking discipline.

School Computer, Data & Math Sciences

Discipline Computer Science

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

Restrictions

Students must be enrolled in a postgraduate program

Assumed Knowledge

Students should be familiar with the fundamentals of computer networking. In particular, students should have a good understanding of the OSI model, the TCP/IP protocol suite, and current Internet and networking technologies. Therefore, it is strongly advised that students must have either taken an appropriate subject in computer networking (e.g., 300695 Network Technologies), or have equivalent knowledge.

Learning Outcomes

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

1. Explain the important concepts relevant to emerging networks and the Internet technologies and architecture.
2. Explain the contemporary issues in security, forensics, and reliability of modern networked systems.
3. Explain the important issues in modern applications and services relying on networked systems.
4. Evaluate the technologies and performance of emerging networks.
5. Demonstrate their proficiency with key research and development issues in the field of networking and network-based services.

Subject Content

Network Technologies Background
 Research, Resources, and Citation
 Contemporary Issues in Computer Networking
 Advanced Networked Systems Forensics, Security, and Reliability
 Advanced Network-based Services
 Trends in Networking and Internet Technologies
 Methodologies for Research in Networking

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 |
|------------|---------------------------------------|---------|-----------|------------------------|-----------|
| Report | 1,000-1,500 words, 10-20 minutes each | 50 | N | Individual | Y |
| Case Study | 6 pages long | 50 | N | Individual | Y |

Prescribed Texts

- Access to Journals, Conference Proceedings, Standards and other relevant publications, through ACM Digital Library, IEEEExplore, ScienceDirect

Teaching Periods

Spring (2024)

Parramatta - Victoria Rd

On-site

Subject Contact Seyed Shahrestani ([https://directory.westernsydney.edu.au/search/name/Seyed Shahrestani/](https://directory.westernsydney.edu.au/search/name/Seyed%20Shahrestani/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP7002_24-SPR_PS_1#subjects)