

# 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

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

## Prescribed Texts

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

## Teaching Periods

### Spring (2022)

**Parramatta - Victoria Rd**

#### Evening

**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\\_22-SPR\\_PS\\_E#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=COMP7002_22-SPR_PS_E#subjects))

### Spring (2023)

**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/))

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