

INFO 7014 ADVANCED TOPICS IN CYBERSECURITY

Credit Points 10

Legacy Code 301236

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 Cybersecurity, contemporary views on security, and the solutions that aim to protect the emerging services and technologies. The emphasis is on the development of student skills to enable them to do proficient research and development works and studies in the cybersecurity discipline. On successful completion of this subject, students will be equipped with an in-depth understanding of relevant issues, attacks on massively interconnected systems, and the evolving approaches to improve the reliability of advanced services.

School Computer, Data & Math Sciences

Discipline Security 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

The students should be familiar with the fundamentals of computer networking and security. It is advisable that the students must have either taken appropriate subjects in these areas (e.g., 300695 Network Technologies and 300696 Systems and Network Security) or have equivalent knowledge.

Learning Outcomes

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

1. Describe the important concepts applicable to the emerging cybersecurity-related approaches and technologies.
2. Analyse the vital cybersecurity issues in modern applications and services.
3. Explain the contemporary issues in security and reliability of modern massively interconnected systems.
4. Evaluate the performance of the emerging cybersecurity solutions and the related technologies.
5. Demonstrate proficiency with key research and development issues in the fields of cybercrime and cybersecurity.

Subject Content

Cybersecurity: Context and Background
 Contemporary Issues in Cybersecurity
 Trust and Behavior Analysis
 Securing Massively Interconnected Systems
 Advanced System Cybersecurity and Reliability
 Cybersecurity Research, Resources, and Citation
 Methodologies for Research in Advanced Cybersecurity

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	1,200 words	20	N	Individual
Intra-session Exam	2 hours	30	N	Individual
Applied Project	4,000 words and 5-10 minutes per student	50	N	Both (Individual & Group)

Teaching Periods

Autumn (2022)

Parramatta - Victoria Rd

Evening

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=INFO7014_22-AUT_PS_E#subjects)

Autumn (2023)

Parramatta - Victoria Rd

On-site

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