INFO 2006 USABLE SECURITY

Credit Points 10

Legacy Code 102757

Coordinator Farnaz Farid (https://directory.westernsydney.edu.au/search/name/Farnaz Farid/)

Description This subject will cover the human factors of security and privacy, as well as address emerging issues, challenges and regulations which underpin the need for usable security and privacy. After introducing the fundamental principles of security and privacy, these will be explored while considering how these principles shape the experience of users who are interacting with the designed product. Humans are an essential part of security and privacy, and they also inherently pose significant challenges. Students will be introduced to some of the fundamental security and privacy standards and regulations. They will learn about cognitive and perceptual approaches to usable security as well as how to create systems that are usable and trusted alongside fulfilling the requirements of remaining secure and private. Research topics such as how to design user studies to critically evaluate security, privacy, trust and usability interfaces will be addressed to provide students with an informed view on emerging best practices.

School Social Sciences

Discipline Security 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 Undergraduate Level 2 subject

Pre-requisite(s) Students enrolled in program 1837 Bachelor of Cyber Security and Behaviour or Testamur major T154 User Experience must have successfully completed both pre-requisite subjects BEHV 1025 Usable Design AND COMP 1005 Programming Fundamentals

Students enrolled in Testamur major T153 Cybersecurity Management must have successfully completed either one of the pre-requisite subjects BEHV 1025 Usable Design OR COMP 1005 Programming Fundamentals

Learning Outcomes

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

1. Demonstrate an understanding of the principles of security, privacy and trust as they relate to key policies, standards and regulations.
2. Evaluate key experimental techniques used in perceptual and cognitive science relevant to usable security and privacy.
3. Explain approaches to social engineering, trust and organisational shift to cyber resilience, and location data permissions.
4. Evaluate modern authentication methods in security.
5. Critically analyse contemporary issues related to security and privacy.
6. Create educational and/or training materials aimed to enhance security and privacy.

Subject Content

- Security, privacy and trust principles used in the design, development and assessment of a range of technologies.
- Security and privacy policies, standards, and regulations.
- Higher order cognitive principles which include aspects of learning, problem solving and decision making with a focus on trust, usability and user perception.
- Organisational shift towards a secure culture of cyber resilience through trust, usable security and behavioural economics.
- Warning and risk design; actions and consequences as both essential and inherently difficult while maintaining security and privacy.
- Humans as the weakest link in the cybersecurity, and educative/AI approaches and theories to counter this risk.
- Security authentication methods such as bio-informatics and password systems.
- Mobile security and privacy - locations and permissions in phone and communication apps.
- Learn people, process and systems for Smart Systems

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
Applied Project	2 hours	50	N	Individual	N
Simulation	3 days	20	N	Individual	N
Applied Project	2 hours	30	N	Individual	N

WSU Online Trimester 3

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Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Professional Task	Redesign an app. 800 words	20	N	Individual	N
Professional Task	Authenticat system ID managemer 800 words	20	N	Individual	N
Professional Task	Training material evaluation. 800 words	20	N	Individual	N
Report	1500-2000 words	40	N	Individual	N

Teaching Periods

Autumn (2025)
Parramatta - Victoria Rd
On-site
Subject Contact Farnaz Farid (https://directory.westernsydney.edu.au/search/name/Farnaz Farid/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFO2006_25-AUT_PS_1#subjects)