INFO 7009 NETWORK SECURITY

Legacy Code 301068

Coordinator Ante Prodan (https://directory.westernsydney.edu.au/search/name/Ante Prodan/)

Student Contribution Band

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Restrictions

Students must be enrolled in the online program Master of Advanced Networking or any other postgraduate Western Sydney University program where this subject can be taken as an unspecified elective and where there are sufficient credit points available in the study program.

Learning Outcomes

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

1. Identify network security threats.
2. Explain techniques for evaluating and managing information security risks.
3. Implement the techniques for designing and implementing network security using available security infrastructure and devices.
4. Analyse the theory behind - and techniques for implementing - access control, authentication, authorisation and accounting.
5. Design secure network architectures.
6. Implement firewall and intrusion prevention technologies.
7. Use cryptography and virtual private networks to ensure secure transmission of information.
8. Outline the importance of physical and environmental security to have a holistic understanding of network security challenges.
9. Integrate knowledge and skills from various sources into a coherent whole, making the appropriate abstractions.
10. Critically evaluate and reflect upon your own work.
11. Solve problems using network modelling tools and real equipment.
12. Interpret complex issues both systematically and creatively, making informed judgements in the absence of complete data.
13. Integrate knowledge and skills from various sources into a coherent whole, making the appropriate abstractions.
14. Solve problems and apply solutions independently to professional or equivalent level tasks/projects/functions.
15. Work with others to refine ideas, leading to an improved understanding of key concepts within the computing systems context.
16. Build and maintain advanced networks using Cisco equipment.
17. Advocate the appropriate use of advanced security technologies.
18. Prepare to gain industry-recognised certification.

Subject Content

1. Security threats and risk management
2. Security architecture and design
3. Security implementation
4. Cryptography
5. Security 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	Mandatory
TMA - Article review; Report; Cisco activities	1000 words	10	Y	Individual	
TMA - Problem solving task; Apply research to problem; Cisco activities	1200 words	20	Y	Group	
TMA - Group Case Study; Apply research to problem; Cisco activities	1100 words	20	Y	Group	
Final examinatior	3 hours	50	Y	Individual	