

# CYBER SECURITY AND ETHICAL HACKING, TESTAMUR MAJOR (T145)

Western Sydney University Major Code: T145

Available to students in other Western Sydney University programs?

No

Cyber Security is an essential aspect of today's information systems. The Cyber Security and Ethical Hacking major aims to develop graduates with skills in network security, cloud security, information security, in the ethical and legal aspects of activities in cyber space. With the widespread use of networked systems, protecting these systems from various attacks is more important than ever. Students apply system security knowledge and security protocols, from basic cryptography algorithms to their applications, in computer systems, networked systems, blockchain technologies and cryptocurrencies. Students learn how to analyse security vulnerabilities and to implement cybersecurity solutions using ethical hacking techniques and following legal and professional standards.

## Location

Campus	Attendance	Mode	Advice	Subject	Title	Credit Points
Parramatta Victoria Road Campus	Full-time	Internal	cdms@westernsydney.edu.au	COMP 3007	Computer Networks and Internets	10
Parramatta Victoria Road Campus	Part-time	Internal	cdms@westernsydney.edu.au	COMP 2028	Cryptography, Cryptocurrencies and Blockchain	10
Penrith Campus	Full-time	Internal	cdms@westernsydney.edu.au	COMP 3037	Cloud Security	10
Penrith Campus	Part-time	Internal	cdms@westernsydney.edu.au	INFO 3002	Ethical Hacking Principles and Practice	10
Sydney City Campus	Full-time	Internal	Antoinette Cevenini ( <a href="https://hbook.westernsydney.edu.au/majors-minors/cyber-security-ethical-hacking-testamur-major/">https://hbook.westernsydney.edu.au/majors-minors/cyber-security-ethical-hacking-testamur-major/</a> ) a.cevenini@city.westernsydney.edu.au	INFO 2004	Cyber Crime and Social Engineering	10
				INFO 3014	Digital Investigations and Forensics	10
				Select one of the following:		10
				INFO 3015	Internet of Things and Smart Environments	
				COMP 3036	Full Stack Development	
				COMP 2029	DevOps	
				Select one of the following		10
				INFO 2004	Cyber Crime and Social Engineering	
				COMP 2028	Cryptography, Cryptocurrencies and Blockchain	
				** Select one of the following		10
				** Students who completed MATH 1006 in the program core, MUST complete one of the following as part of their major: MATH 2009, MATH 2010, COMP 2025		
				MATH 2010	Linear Algebra	
				COMP 2025	Introduction to Data Science	
				** Students who completed MATH 1038 in the program core, MUST complete one of the following as part of their major: MATH 1006, MATH 2009, MATH 2010, COMP 2025		
				MATH 1006	Discrete Mathematics	
				MATH 2010	Linear Algebra	
				COMP 2025	Introduction to Data Science	

## Major Structure

This sequence applies to students who commenced in Autumn 2023.

Students must complete 80 credit points as follows

Subject	Title	Credit Points	Subject	Title	Credit Points
MATH 1006	Discrete Mathematics	10	COMP 3007	Computer Networks and Internets	10
COMP 3007	Computer Networks and Internets	10	COMP 3012	Introduction to Cloud Computing	10
COMP 2028	Cryptography, Cryptocurrencies and Blockchain	10	COMP 3037	Cloud Security	10
COMP 3037	Cloud Security	10	INFO 3002	Ethical Hacking Principles and Practice	10
INFO 3002	Ethical Hacking Principles and Practice	10	INFO 3014	Digital Investigations and Forensics	10
INFO 2004	Cyber Crime and Social Engineering	10	Select one of the following:		10
INFO 3014	Digital Investigations and Forensics	10	INFO 3015	Internet of Things and Smart Environments	
Select one of the following:		10	COMP 3036	Full Stack Development	
INFO 3015	Internet of Things and Smart Environments		COMP 2029	DevOps	
COMP 3036	Full Stack Development		Select one of the following		10
			INFO 2004	Cyber Crime and Social Engineering	
			COMP 2028	Cryptography, Cryptocurrencies and Blockchain	
			** Select one of the following		10
			** Students who completed MATH 1006 in the program core, MUST complete one of the following as part of their major: MATH 2010, COMP 2025		
			MATH 2010	Linear Algebra	
			COMP 2025	Introduction to Data Science	
			** Students who completed MATH 1038 in the program core, MUST complete one of the following as part of their major: MATH 1006, MATH 2010, COMP 2025		

MATH 1006	Discrete Mathematics
MATH 2010	Linear Algebra
COMP 2025	Introduction to Data Science

## Related Programs

Bachelor of Information and Communications Technology (3639)  
(<https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-information-communications-technology/>)

Bachelor of Information and Communications Technology (Advanced) (3684) (<https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-information-communications-technology-advanced/>)