

Master of Cyber Security (MCYS) - MCyberSec

CRICOS code (International applicants): 0100380

	On-campus	Online
Semester intake:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July) Semester 3 (November)
Campus:	Springfield, Toowoomba	-
Fees:	Domestic full fee paying place International full fee paying place	Domestic full fee paying place International full fee paying place
Standard duration:	2 years full time, up to 4 years part-time	

Contact us

Future Australian and New Zealand students	Future International students	Current students
Ask a question Freecall (within Australia): 1800 269 500 Phone (from outside Australia): +61 7 4631 5315 Email: study@usq.edu.au	Ask a question Phone: +61 7 4631 5543 Email: international@usq.edu.au	Ask a question Freecall (within Australia): 1800 007 252 Phone (from outside Australia): +61 7 4631 2285 Email: usq.support@usq.edu.au

Program aims

The Master of Cyber Security is a program that enables students to acquire an advanced level of knowledge and skills, including project experience in Cyber Security. The program will provide students with skills in Cyber Security and broaden this knowledge into contemporary domains including data mining, big data analytics, web and cloud security, Internet of Things, Financial Technology, and digital forensics. The capstone project provides students with skills comparable to industry practice.

Program objectives

Upon successful completion of this program, students should be able to:

- Expertly synthesise and apply advanced Cyber Security specific knowledge, including contemporary and emerging theories and concepts, to a range of business contexts and scenarios;
- Critically examine, analyse, implement and articulate a range of innovative solutions to a variety of real-life Cyber-Security business scenarios;
- Apply specialised cognitive and technical skills to investigate, critically reflect and synthesise complex ideas at an abstract level;
- Effectively work in a project environment by contributing to the successful completion of a Cyber Security project.;
- Employ a range of oral, written and digital literacies to transmit complex Cyber Security knowledge in professional and scholarly contexts to a diverse audience;
- Apply principles of integrity and high calibre ethical behaviour in accordance with academic, industry and professional standards.

Australian Qualifications Framework

The Australian Qualifications Framework (AQF) is a single national, comprehensive system of qualifications offered by higher education institutions (including universities), vocational education and training institutions

and secondary schools. Each AQF qualification has a set of descriptors which define the type and complexity of knowledge, skills and application of knowledge and skills that a graduate who has been awarded that qualification has attained, and the typical volume of learning associated with that qualification type.

This program is at AQF Qualification Level 09. Graduates at this level will have specialised knowledge and skills for research, and/or professional practice and/or further learning.

The full set of levels criteria and qualification type descriptors can be found by visiting www.aqf.edu.au.

Admission requirements

To be eligible for admission, applicants must satisfy the following requirements:

- Completion of an Australian university bachelor degree, or equivalent.
- English Language Proficiency requirements for Category 2.

All students are required to satisfy the applicable [English language requirements](#).

If students do not meet the English language requirements they may apply to study a University-approved [English language program](#). On successful completion of the English language program, students may be admitted to an award program.

Program fees

Domestic full fee paying place

Domestic full fee paying places are funded entirely through the full fees paid by the student. Full fees vary depending on the courses that are taken. Students are able to calculate the fees for a particular course via the [Course Fee Finder](#).

Domestic full fee paying students may be eligible to defer their fees through a Government loan called [FEE-HELP](#) provided they meet the residency and citizenship requirements.

Australian citizens, Permanent Humanitarian Visa holders, Permanent Resident visa holders and New Zealand citizens who will be resident outside Australia for the duration of their program pay full tuition fees and are not eligible for [FEE-Help](#).

International full fee paying place

International students pay full fees. Full fees vary depending on the courses that are taken and whether they are studied on-campus, via distance education/online. Students are able to calculate the fees for a particular course via the [Course Fee Finder](#).

Program structure

The Master of Cyber Security consists of 16 units and has the following structure:

- six foundation core courses, each of one unit
- four advanced core courses, each of one unit
- four advanced specialisation courses, each of one unit; and
- one capstone project course of two units.

Students must maintain good standing in this program. Please refer to the [Academic Standing, Progression and Exclusion Procedure](#).

Required time limits

Students have a maximum of 6 years to complete this program.

Core courses

Courses	Semester of offer Online	Semester of offer Toowoomba campus	Semester of offer Springfield campus
Foundation courses			
CIS5100 Professional Skills for Information Systems	1, 2 ,3	1, 2	1, 2
CIS5310 ICT Project Management	1, 3	1	1
CSC8100 Cyber Security Architecture	1, 2	1, 2	1
CSC8101 Penetration Testing	1	1	1
CSC8426 Advanced Web Technology	2	2	2
CIS8708 Digital Forensics	1		1
Advanced compulsory courses			
CIS8710 Human Factors in Cyber Security	2, 3		2
CIS8711 Cloud Security	2		2
CSC8419 Cryptography and Security	1	1	1
CSC8421 Network Security	2	2	
Capstone project course			
CIS8720 Cyber Security Project^{*^}			

Footnotes

* This course is two units.

^ This course will be available from 2021 onwards.

Business Application specialisation

Courses	Semester of offer Online	Semester of offer Toowoomba campus	Semester of offer Springfield campus
CIS5206 Data Mining for Business Analytics and Cyber Security	2	2	
CIS8011 Digital Innovation	2, 3	2	2
CIS8025 Big Data Analytics	1, 2	1, 2	
CIS8504 Blockchain Fundamentals	1,3		1

Governance Risk & Compliance specialisation

Courses	Semester of offer Online	Semester of offer Toowoomba campus	Semester of offer Springfield campus
CIS8707 Cyber Incident Management and Response	2, 3		2
CIS8709 Cyber Governance and Leadership	2, 3		2
CIS8712 Information Assurance and Risk Management	1		1
LAW3476 Privacy and Data Protection Law	3		

Technical specialisation

Courses	Semester of offer Online	Semester of offer Toowoomba campus	Semester of offer Springfield campus
CSC8507 Networking Technologies	1	1	
CSC8512 Advanced System Administration	1	1	
CSC8002 Big Data Management	2, 3	2	2
CSC8003 Machine Learning	2, 3	2	

IT requirements

For information technology requirements please refer to USQ's [minimum computing standards](#).

Exit points

A student who chooses not to complete or who does not maintain good standing in this program will be permitted to exit with a lesser qualification as set out below, provided that they have met the requirements of that program. The objectives covered within an exit point program are a subset of the overarching Masters Program objectives.

- A student who successfully completes any 4 foundation core courses may, upon application, exit with the Graduate Certificate of Cyber Security qualification.
- A student who successfully completes 8 courses (any 4 foundation core plus any other four courses offered within the Master of Cyber Security) may, upon application, exit with the Graduate Diploma of Cyber Security qualification.

Credit

As the Master Cyber Security is a graduate conversion program, credits approved in the program do not automatically apply to other postgraduate programs offered by USQ.

Up to a total of 8 credits may be granted for the 16-unit Master of Cyber Security.

Credits may be granted on the basis of completed equivalent postgraduate study from a recognised university

Recommended enrolment pattern - semester 1 intake

Students are able to enrol in any offered mode of a course (on-campus, external or online), regardless of the program mode of study they enrolled in.

Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
CIS5100 Professional Skills for Information Systems	1	1			1	1	
CIS5310 ICT Project Management	1	1			1	1	Enrolment is not permitted in CIS5310 if CIS8010 has been previously completed.
CSC8100 Cyber Security Architecture	1	1			1	1	
CSC8419 Cryptography and Security	1	1			1	1	Pre-requisite: Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN or MCYS
CIS8710 Human Factors in Cyber Security	1	2			1	2	Co-requisite: CIS5100
CIS8711 Cloud Security	1	2			1	2	Pre-requisite: CSC8100 and CIS5100
CSC8421 Network Security	1	2			1	2	Pre-requisite: Students must have completed CSC8419 or equivalent and be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN or MCYS
CSC8426 Advanced Web Technology	1	2			1	2	Pre-requisite: CSC2406 and Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN. Students enrolled in the MCYS program can enrol and do not need to complete CSC2406 prior
CSC8101 Penetration Testing	2	1			2	1	Pre-requisite: CSC8100
CIS8708 Digital Forensics	2	1			2	1	Pre-requisite: CSC8100 or Students must be enrolled in the following Program: MISP
Complete for Governance Risk & Compliance specialisation							
CIS8712 Information Assurance and Risk Management	2	1			2	12	
LAW3476 Privacy and Data Protection Law					1, 2	3	Pre-req: ((Students enrolled in: BEDU (Legal Studies) or BLAW or LLBP or BALW or BBLA or BCLA or BCLW) & (LAW1201 or (LAW1111 & LAW1112)) or ((Students enrolled in: DJUR & (LAW5501 or (LAW5111 & LAW5112))). Alternatively, students may be enrolled in MCYS.
Complete for Business Application specialisation							
CIS8025 Big Data Analytics	2	1			2	1	Enrolment is not permitted in CIS8025 if CIS8701 has been previously completed.
CIS8504 Blockchain Fundamentals	2	1			2	1	Enrolment is not permitted in CIS8504 if CIS8702 has been previously completed.
Complete for Technical specialisation							
CSC8507 Networking Technologies	2	1			2	1	Pre-requisite: Students must be enrolled in one of the following Programs: GDTI or GCSC or MCTN or MCYS or MCOP
CSC8512 Advanced System Administration	2	1			2	1	Pre-requisite: Some experience with a Unix Operating System and Students must be

Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
							enrolled in one of the following Programs: GDTI or GCSC or MCTN or MCYS or MCOP
Complete for Governance Risk & Compliance specialisation							
CIS8707 Cyber Incident Management and Response	2	2			2	2	Pre-requisite: CSC8100
CIS8709 Cyber Governance and Leadership	2	2			2	2	Pre-requisite: CSC8100
Complete for Business Application specialisation							
CIS8011 Digital Innovation	2	2			2	2	
CIS5206 Data Mining for Business Analytics and Cyber Security	2	2			2	2	
Complete for Technical specialisation							
CSC8002 Big Data Management	2	2			2	2	Pre-requisite or Co-requisite: CSC1401 and (STA2300 or STA1003 or STA8170) or equivalent program and statistical knowledge and skills.
CSC8003 Machine Learning	2	2			2	2	Pre-requisite: (STA2300 or STA1003 or STA8170) and CSC1401 or equivalent program and statistical knowledge and skills.
Complete for all specialisations							
CIS8720 Cyber Security Project *	2	2			2	2	

Footnotes

* This course is worth 2 units.

Recommended enrolment pattern - semester 2 intake

Students are able to enrol in any offered mode of a course (on-campus, external or online), regardless of the program mode of study they enrolled in.

Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
CIS5100 Professional Skills for Information Systems	1	1			1	1	
CIS8710 Human Factors in Cyber Security	1	1			1	1	Co-requisite: CIS5100
CSC8100 Cyber Security Architecture	1	1			1	1	
CSC8426 Advanced Web Technology	1	1			1	1	Pre-requisite: CSC2406 and Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN. Students enrolled in the MCYS program can enrol and do not need to complete CSC2406 prior
CIS5310 ICT Project Management #	1	2			1	2	Enrolment is not permitted in CIS5310 if CIS8010 has been previously completed.
CIS8708 Digital Forensics	1	2			1	2	Pre-requisite: CSC8100 or Students must be enrolled in the following Program: MISP
CSC8101 Penetration Testing	1	2			1	2	Pre-requisite: CSC8100
CSC8419 Cryptography and Security	1	2			1	2	Pre-requisite: Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN or MCYS

Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
Complete for all specialisations							
CSC8421 Network Security	2	1			2	1	Pre-requisite: Students must have completed CSC8419 or equivalent and be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN or MCYS
CIS8711 Cloud Security	2	1			2	1	Pre-requisite: CSC8100 and CIS5100
Complete for Governance Risk & Compliance specialisation							
CIS8712 Information Assurance and Risk Management	2	1			2	1	
LAW3476 Privacy and Data Protection Law					1, 2	3	Pre-req: ((Students enrolled in: BEDU (Legal Studies) or BLAW or LLBP or BALW or BBLA or BCLA or BCLW) & (LAW1201 or (LAW1111 & LAW1112)) or ((Students enrolled in: DJUR & (LAW5501 or (LAW5111 & LAW5112))). Alternatively, students may be enrolled in MCYS.
CIS8707 Cyber Incident Management and Response	2	1			2	1	Pre-requisite: CSC8100
CIS8709 Cyber Governance and Leadership	2	1			2	1	Pre-requisite: CSC8100
Complete for Business Application specialisation							
CIS8025 Big Data Analytics	2	2			2	2	Enrolment is not permitted in CIS8025 if CIS8701 has been previously completed.
CIS5206 Data Mining for Business Analytics and Cyber Security	2	1			2	1	
CIS8011 Digital Innovation	2	1			2	1	
CIS8504 Blockchain Fundamentals	2	2			2	2	Enrolment is not permitted in CIS8504 if CIS8702 has been previously completed.
Complete for Technical specialisation							
CSC8002 Big Data Management	2	1			2	2	Pre-requisite or Co-requisite: CSC1401 and (STA2300 or STA1003 or STA8170) or equivalent program and statistical knowledge and skills.
CSC8003 Machine Learning	2	1			2	2	Pre-requisite: (STA2300 or STA1003 or STA8170) and CSC1401 or equivalent program and statistical knowledge and skills.
CSC8507 Networking Technologies	2	2			2	1	Pre-requisite: Students must be enrolled in one of the following Programs: GDTI or GCSC or MCTN or MCYS or MCOP
CSC8512 Advanced System Administration	2	2			2	1	Pre-requisite: Some experience with a Unix Operating System and Students must be enrolled in one of the following Programs: GDTI or GCSC or MCTN or MCYS or MCOP
Complete for all specialisations							
CIS8720 Cyber Security Project *	2	1			2	1	

Footnotes

CIS8010 is an equivalent course. Students who have completed CIS8010 do not need to complete CIS5310.

* This course is worth 2 units.

Recommended enrolment pattern - semester 3 intake

Students are able to enrol in any offered mode of a course (on-campus, external or online), regardless of the program mode of study they enrolled in.

Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
CIS5100 Professional Skills for Information Systems					1	3	
CIS8710 Human Factors in Cyber Security					1	3	Co-requisite: CIS5100
CIS5310 ICT Project Management[#]					1	3	Enrolment is not permitted in CIS5310 if CIS8010 has been previously completed.
CIS8708 Digital Forensics	1	1			1	1	Pre-requisite: CSC8100 or Students must be enrolled in the following Program: MISP
CSC8101 Penetration Testing	1	1			1	1	Pre-requisite: CSC8100
CSC8419 Cryptography and Security	1	1			1	1	Pre-requisite: Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN or MCYS
CSC8100 Cyber Security Architecture	1	2			1	2	
CSC8426 Advanced Web Technology	1	2			1	2	Pre-requisite: CSC2406 and Students must be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN. Students enrolled in the MCYS program can enrol and do not need to complete CSC2406 prior
Complete for all specialisations							
CSC8421 Network Security	1	2			1	2	Pre-requisite: Students must have completed CSC8419 or equivalent and be enrolled in one of the following Programs: MCOP or MPIT or MCOT or MCTE or MENC or MEPR or MENS or METC or MSST or MCTN or MCYS
CIS8711 Cloud Security	1	2			1	2	Pre-requisite: CSC8100 and CIS5100
Complete for Governance Risk & Compliance specialisation							
CIS8712 Information Assurance and Risk Management	1	1			1	1	
LAW3476 Privacy and Data Protection Law					1, 2	3	Pre-req: ((Students enrolled in: BEDU (Legal Studies) or BLAW or LLBP or BALW or BBLA or BCLA or BCLW) & (LAW1201 or (LAW1111 & LAW1112)) or ((Students enrolled in: DJUR & (LAW5501 or (LAW5111 & LAW5112))). Alternatively, students may be enrolled in MCYS.
CIS8707 Cyber Incident Management and Response					2	3	Pre-requisite: CSC8100
CIS8709 Cyber Governance and Leadership					2	3	Pre-requisite: CSC8100
Complete for Business Application specialisation							
CIS8025 Big Data Analytics	1	1			1	1	Enrolment is not permitted in CIS8025 if CIS8701 has been previously completed.
CIS5206 Data Mining for Business Analytics and Cyber Security	2	1			2	1	
CIS8011 Digital Innovation					2	3	
CIS8504 Blockchain Fundamentals					2	3	Enrolment is not permitted in CIS8504 if CIS8702 has been previously completed.

Course	Year of program and semester in which course is normally studied						Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)		
	Year	Sem	Year	Sem	Year	Sem	
Complete for Technical specialisation							
CSC8002 Big Data Management					2	3	Pre-requisite or Co-requisite: CSC1401 and (STA2300 or STA1003 or STA8170) or equivalent program and statistical knowledge and skills.
CSC8003 Machine Learning					2	3	Pre-requisite: (STA2300 or STA1003 or STA8170) and CSC1401 or equivalent program and statistical knowledge and skills.
CSC8507 Networking Technologies	1	1			1	1	Pre-requisite: Students must be enrolled in one of the following Programs: GDTI or GCSC or MCTN or MCYS or MCOP
CSC8512 Advanced System Administration	2	1			2	1	Pre-requisite: Some experience with a Unix Operating System and Students must be enrolled in one of the following Programs: GDTI or GCSC or MCTN or MCYS or MCOP
Complete for all specialisations							
CIS8720 Cyber Security Project *	2	1			2	1	

Footnotes

- # CIS8010 Information Systems Project Management is an equivalent course. Students who have completed CIS8010 do not need to complete CIS5310
- * This course is worth 2 units