

Master of Computing Technology, Master of Computing Technology (Extended) (MCOTorMCTE) - MCT, MCTE

CRICOS code (International applicants): Master of Computing Technology (MCOT) 069702M; Master of Computing Technology (Extended) (MCTE) 069703K

	On-campus*	Distance education*
Semester intake:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July)
Campus:	Toowoomba	
Fees:	Commonwealth supported place Domestic full fee paying place International full fee paying place	Commonwealth supported place Domestic full fee paying place International full fee paying place
Standard duration:	MCOT: 1.5 years full-time, 3 years part-time, 4.5 years maximum. MCTE: 2 years full-time, 4 years part-time, 6 years maximum.	
Program articulation:	From: Graduate Diploma of Information Technology (Faculty of Sciences) To: Master of Computing or ; Master of Computing Technology, Master of Computing Technology (Extended)	

Footnotes

* Please contact the Program Coordinator for more information about articulating into the ; [Master of Computing](#) or the ; [Master of Computing Technology, Master of Computing Technology \(Extended\)](#)

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: studysci@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 focus

The Master of Computing Technology (MCOT) and Master of Computing Technology (Extended) (MCTE) are vocationally and academically-oriented programs. With majors in Networking and System Security, Software and the Web, **MCOT** and **MCTE** provide graduates with skills and knowledge in key areas of computing which relate to their needs and the needs of their profession or industry. In addition, students studying the Master of Computing Technology (Extended) may undertake a four-unit project and research training to qualify them for USQ PhD studies.

Professional accreditation

This program is accredited at Professional level by the [Australian Computer Society](#) and, through the Seoul Accord, is recognised in other countries.

Program aims

The Master of Computing Technology and Master of Computing Technology (Extended) aim to produce graduates coming from any discipline who can work as web information professionals, system and network administrators, database administrators, database designers, IT managers or software engineers.

Program objectives

Successful completion of the program will enable graduates to:

- work as a professional in the Information Technology industry
- acquire specific knowledge and skills in information technology in one or several of the following areas:
 - web information systems
 - software engineering
 - networking, or
 - network commerce
- understand a broad range of topics in information technology
- design, manage and develop software systems and networks in an effective manner
- lead discussions relating to the computing aspects of their workplace
- become better problem-solvers and innovative thinkers, who are able to learn new skills independently and efficiently and consequently to succeed in a competitive professional environment
- identify information needs appropriate to their area of specialisation, and apply the techniques required to gather and interpret such information
- demonstrate skills in the analysis and determination of technological issues at management level
- identify, analyse and solve problems in one or more areas of technology by selecting and using either quantitative or qualitative techniques appropriate to the resolution of technological problems
- satisfy academic admission requirements for membership of relevant professional bodies
- identify, interpret and evaluate major issues in a range of contemporary business information technology areas
- apply acquired knowledge associated with their studies to work environments
- articulate the principal theories, concepts and applications associated with their selected business information technology area(s)
- understand and act in accordance with the ethics of their profession.

Graduates may be able to pursue USQ Doctor of Philosophy (PhD) if the program includes 4 units of research ([MSC8001](#) and [MSC8002](#)) and achieve a GPA of 5.5 or higher.

Admission requirements

To qualify for entry to the program, applicants must:

- (1) hold a Bachelor's degree from an Australian university or equivalent **and**
- (2) have introductory knowledge of computing, consistent with that found in:

- [MAT1101 Discrete Mathematics for Computing](#) **and**
- [CSC1401 Foundation Programming](#) **and**
- [CIS1000 Information Systems Concepts](#)

This knowledge and skills can be acquired by:

- completing these courses as a USQ student in an award or non-award program; or
- studying equivalent courses at other universities; or
- work experience, in which case applicants will need to provide suitable evidence of the acquisition of the skills and knowledge.

International Applicants

International applicants must have met the University's [English Language](#) requirements or have completed the University's [ELICOS/EAP](#) programs.

How to apply

Domestic students 2011

[Application for postgraduate programs](#) may be made directly to USQ. You should ensure you submit your application by the [closing dates](#).

International students 2011

This program is offered to international students. An international student is a person who is not an Australian or New Zealand citizen and not an Australian permanent resident. Please refer to [USQ International](#) for information about entry requirements, visa arrangements and how to apply.

Program fees

Commonwealth supported place

A Commonwealth supported place is where the Australian Government makes a contribution towards the cost of your higher education and you as a student pay a [student contribution amount](#), which varies depending on the courses undertaken. You are able to calculate the fees for a particular course via the [Course Fee Finder](#). Commonwealth Supported students may be eligible to defer their fees through a Government loan called [HECS-HELP](#).

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. You are able to calculate the fees for a particular course via the [Course Fee Finder](#).

Permanent Humanitarian Visa holders, Permanent Resident visa holders and New Zealand citizens who reside outside Australia pay full tuition fees.

Domestic full fee paying students may be eligible to defer their fees through a Government loan called [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. You are able to calculate the fees for a particular course via the [Course Fee Finder](#).

Program structure

Master of Computing Technology (MCOT) consists of 12 units of courses subject to the following restrictions:

- at least six units of Level 8 courses of which at most two may come from outside the following Group 3 CSC courses
- no Level 1 courses will be credited towards the program
- no more than three units of courses may be at Level 2
- no more than two units of courses at Level 2 and 3 may come from outside the following Group 1 and Group 2 CSC courses.

Master of Computing Technology (Extended) (MCTE) consists of 16 units of courses subject to the following restrictions:

- at least six units of Level 8 courses of which at most two may come from outside the following Group 3 CSC courses
- no Level 1 courses will be credited towards the program
- no more than five units of courses may be at Level 2
- no more than three units of courses at Level 2 and 3 may come from outside the following Group 1 and Group 2 CSC courses.

To be eligible for entry to USQ Doctor of Philosophy (PhD) program, student must complete the MCTE and

- four units of research work (MSC8001 and MSC8002) are included
- at least four units of Level 8 CSC courses are included
- no Level 1 course is included
- no Level 3 course from outside the following Group 2 CSC courses is included

- no more than four units of courses may be at level 2
- no more than two units of courses at Level 2 may come from outside the following Group 1 CSC courses.

Students with a degree equivalent at least to an Australian Bachelor degree may be eligible for up to 2 block credits in the MCTE. These credits will be awarded in accordance to guidelines set by the Faculty of Sciences. No further exemptions or credits for previous study will be permitted except for incomplete studies and those listed in the Articulation section.

Students who want to select courses from outside the following table need approval by the Program Coordinator.

Group 1 Courses	
Semester 1	Semester 2
CSC2402 Object-Oriented Programming in C++	CSC2401 Algorithms and Data Structures
CSC2408 Software Development Tools	CSC2404 Operating Systems
	CSC2406 Web Technology
MAT2409 High Performance Numerical Computing	CSC2407 Introduction to Software Engineering
	CSC2408 Software Development Tools
Group 2 Courses	
Semester 1	Semester 2
CSC3400 Database Systems	CSC3413 Network Design and Analysis
CSC3403 Comparative Programming Languages	
CSC3407 Network Fundamentals and Routing	CSC3427 Switching, Wireless and WAN Technologies
CSC3412 System and Security Administration	
Group 3 Courses	
Semester 1	Semester 2
CSC8407 Wireless and Internet Technology	CSC8409 XML and Semantic Web Services
CSC8410 Independent Studies in Computing/Mathematics/Statistics A	CSC8411 Independent Studies in Computing/Mathematics/Statistics B
CSC8419 Cryptography and Security	CSC8420 Mobile Systems
CSC8480 Computing Complementary Studies A	CSC8490 Computing Complementary Studies B
CSC8416 Advanced Programming in Java	CSC8408 e-Commerce Technology
CSC8417 Advanced Web Data Management	CSC8415 Computer Network Programming
MSC8001 Research Project Methodology*#	MSC8001 Research Project Methodology*#
MSC8002 Research Project Dissertation*#	MSC8002 Research Project Dissertation*#

Footnotes

* Enrolment into the courses MSC8001 and MSC8002 are subjected to availability of research projects and approval from project supervisors.

Both MSC8001 and MSC8002 are 2 unit courses.

Students may undertake a major in one of the fields shown in the following table by completing the associated courses. A major represents a grouping of related courses.. Note that it is not compulsory to undertake a major in this program.

Major	Courses for the major
Software and the Web	CSC2406 Web Technology
	CSC2407 Introduction to Software Engineering
	CSC2408 Software Development Tools
	CSC3400 Database Systems
	CSC3403 Comparative Programming Languages
	CSC3407 Network Fundamentals and Routing
	CSC8409 XML and Semantic Web Services
	CSC8416 Advanced Programming in Java
	CSC8417 Advanced Web Data Management
	CSC8420 Mobile Systems
	Two level 8 electives subject to the restrictions listed in the Program Structure
	MCTE: Four CSC electives [^] subject to the restrictions listed in the Program Structure* [#]
Networking and System Security	CSC2402 Object-Oriented Programming in C++
	CSC2408 Software Development Tools
	CSC3412 System and Security Administration
	CSC3407 Network Fundamentals and Routing
	CSC3413 Network Design and Analysis
	CSC3427 Switching, Wireless and WAN Technologies
	CSC8407 Wireless and Internet Technology
	CSC8408 e-Commerce Technology
	CSC8415 Computer Network Programming
	CSC8419 Cryptography and Security
	Two level 8 electives subject to the restrictions listed in the Program Structure
	MCTE: Four CSC electives [^] subject to the restrictions listed in the Program Structure* [#]

Footnotes

[^] CSC electives are USQ courses whose course code start with CSC2xxx, CSC3xxx or CSC8xxx.

* Student must replace the four CSC electives with MSC8001 and MSC8002 if they wish to enrol in USQ PhD program after completing MCTE.

[#] Both MSC8001 and MSC8002 are 2 unit courses.

This list of postgraduate courses may vary from time to time as the range of courses offered within the University changes. Individual postgraduate courses which are relevant to the goals of a student and consistent with the purposes of this program may be allowed at the discretion of the Program Coordinator.

Required time limits

Students have a maximum of 4.5 years to complete MCOT and 6 years to complete MCTE.

IT requirements

All students are required to have access to the Internet and to a personal computer running Microsoft Windows and Linux. The Department provides assistance with installing Linux for students who may not have done so before. Note that at <http://www.usq.edu.au/ict/students/standards/default.htm>, USQ makes recommendations about the type of hardware and software best suited to match our systems. Compliance with these

recommendations will ensure students receive the computing help needed if experiencing problems. Macintosh computers are not recommended due to the software used in the courses. Software is specified on a course-by-course basis and, in some instances, it is provided with the textbook required for the course.

The University has installed a wireless network for students' computers. In order to take advantage of this facility and further enhance their on-campus learning environment, students should consider purchasing a notebook/laptop computer with wireless connectivity. A notebook/laptop may be required for some courses.

Articulation

Upon successful completion of the [GDTI Graduate Diploma of Information Technology \(Faculty of Sciences\)](#), students may articulate into the Master of Computing Technology (MCOT) with up to a maximum of four credit units exemption from the GDTI to MCOT in accordance with the MCOT requirements.

Upon successful completion of the [GDTI Graduate Diploma of Information Technology \(Faculty of Sciences\)](#), students may articulate into the Master of Computing Technology (Extended) (MCTE) with up to a maximum of four credit units exemption from the GDTI to MCTE in accordance with the MCTE requirements.

PhD Program entry requirements

Students wishing to enrol in the USQ Doctor of Philosophy (PhD) program must complete the Master of Computing Technology (Extended) which

- includes MSC8001 and MSC8002
- includes at least four level 8 CSC courses
- no Level 1 courses is included
- no Level 3 courses from outside the Group 2 CSC courses are included
- no more than four units of courses at Level 2 are included
- no more than two units of courses at Level 2 included may come from outside the following Group 1 CSC courses
- achieve a GPA of 5.5 or higher.

Exit points

Students enrolled in the MCOT program who wish to exit without completing the program may be awarded

- the Graduate Diploma of Professional Computing (GDPC) if they have completed at least eight units (excluding exemptions and credit transfers); *or*
- the Graduate Certificate in Professional Computing (GCPC) if they have completed at least four units (excluding exemptions and credit transfers) in accordance with the MCOT requirements.

Students enrolled in the MCTE program who wish to exit without completing the program may be awarded

- the Graduate Certificate in Professional Computing (GCPC) if they have completed, in accordance with the MCTE requirements, at least four units (excluding exemptions and credit transfers); *or*
- the Graduate Diploma of Professional Computing (GDPC) if they have completed, in accordance with the MCOT requirements, at least eight units (excluding exemptions and credit transfers); *or*
- MCOT if they completed at least 12 units in accordance with the requirements of MCOT.

Exemptions

Students with a degree equivalent at least to an Australian Bachelor degree may be eligible for up to 2 block credits in the MCTE. These credits will be awarded in accordance to guidelines set by the Faculty of Sciences. No further exemptions or credits for previous study will be permitted except for incomplete studies and those listed in the Articulation section.

No exemptions or credits for previous study will be permitted in MCOT except for incomplete studies and those listed in the Articulation section.

Recommended Enrolment Pattern

Students should select their own courses, using the list provided at Program structure keeping in mind the requirements to graduate outlined also in the Program Structure. If unsure about a suitable enrolment pattern, students should contact the Program Coordinator.