

Bachelor of Information Technology (BITC) - BIT

QTAC code (Australian and New Zealand applicants): Toowoomba campus: 903741; Online: 903745;
Springfield campus: 923741

CRICOS code (International applicants): 007490J

Programs at USQ are regularly reviewed to ensure they remain professionally-relevant, in order to enhance the graduate outcomes of our students. This program is currently being re-accredited and is as a consequence likely to undergo some changes. Full details will be available when it is approved. If you have any questions, please [contact us](#) directly.

	On-campus	Online
Start:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July) Semester 3 (November)
Campus:	Springfield, 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:	3 years full-time, up to 6 years part-time	

Notes:

The Information Technology Management major and Networking and Security major are available at Springfield campus.

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

Professional accreditation

The Bachelor of Information Technology program is accredited at professional level by the [Australian Computer Society](#) (ACS) and, through the Seoul Accord, is recognised in other countries.

Program aims

The Bachelor of Information Technology is a vocationally-oriented program which emphasises problem solving through the use of information technology. This program focuses on the effective analysis development and management of information and communication technologies in organisations.

The program's foundation is designed to provide students with knowledge and skills in key areas of IT as well as professionally relevant knowledge, qualities and skills in such areas as problem solving, project management, teamwork, communication and ethics.

Program objectives

The objectives of the Bachelor of Information Technology are to enable graduates to:

- apply principles of information technology
- apply problem-solving skills and use information technology for problem solving as an individual or within a team
- think critically, constructively and logically about project management principles and tools to plan project completions
- communicate clearly and coherently to present relevant knowledge and ideas to a range of audiences
- identify, collect, analyse and manage information for a broad range of information technology issues and challenges
- demonstrate an understanding of ethical standards and socially responsible information technology practices.

Major objectives

Applied Computer Science major

On completion of the Applied Computer Science major, graduates should be able to:

- display detailed knowledge of and be competent in the fundamentals of structured programming, and the application of basic algorithms and data structures
- evaluate the difference between the major programming language paradigms, and be able to select the paradigm best suited to solve a problem
- demonstrate sound knowledge of operating systems principles and display familiarity with various modern operating systems
- demonstrate a sound knowledge of web technology and techniques both at the client and the server side
- design and implement web-based user interfaces in accordance to technical, stylistic, and open access standards
- evaluate and apply methods for planning and managing large software projects, including design, development and maintenance aspects
- demonstrate detailed knowledge of the fundamental principles of database systems and be able to apply these using database software.

Data Analytics major

On completion of the Data Analytics major, graduates should be able to:

- capture, manage and analyse large volumes of data (big data) both structured and unstructured using appropriate techniques and technologies
- effectively communicate information and knowledge obtained from large volumes (big data) in appropriate formats for the intended audience
- analyse large volumes of data in a critical ethical and professional manner.

Information Systems Development major

On completion of the Information Systems Development major, graduates should be able to:

- demonstrate an understanding of the electronic business framework for areas such as marketing, supply chains and mobile commerce
- demonstrate an ability to design and analyse business systems including database design and use, network architectures, organisation and human-computer interaction issues
- demonstrate abilities with object-oriented development of systems, particularly Internet applications and enterprise systems in .NET and Java
- demonstrate expertise with the Oracle (SQL) environment.

Information Technology Management major

On completion of the Information Technology Management major, graduates should be able to:

- demonstrate knowledge of the electronic business framework for areas such as marketing, supply chains and mobile commerce

- demonstrate an ability to design and analyse business systems including database design and use, network architectures, organisation and human-computer interaction issues
- demonstrate an understanding of information systems security and control issues
- recognise the importance of IT service management and demonstrate understanding of the important best practice frameworks
- 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.

Networking and Security major

On completion of the Networking and Security major, graduates should be able to:

- design, install, configure, troubleshoot, and maintain networks and their operating systems
- install, configure and manage network, system, user, and security services
- demonstrate acquired skills in development of new systems to operate networks
- interface networks with wide area networks such as the Internet and newer network architectures
- demonstrate sound knowledge of the operating systems that are used to provide services on networks, including at least Linux and Windows
- demonstrate detailed knowledge of the fundamental principles of database systems and be able to apply these using database software.

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 07. Graduates at this level will have broad and coherent knowledge and skills for professional work and/or further learning.

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

Program Information Set

View UniSQ's admission criteria, student profiles and a summary of all offers made under [Course Admission Information Set](#) via the QTAC website.

Admission requirements

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

- Have achieved a minimum Australian Tertiary Admission Rank (ATAR) of **58.9**, or equivalent qualification.[^]
- English Language Proficiency requirements for Category 2.

Applicants are advised to also address the following:

- [Assumed Knowledge](#) expectations: English (Units 3 & 4, C). Data0 0 1 137.121ee463eh (1 0 1 2 560B2scTTsy majo - G

* Open Access College has courses available via [Tertiary Preparation Program](#) which will allow students to up-skill in Mathematics prior to entry.

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.

These are determined by the University for specific programs each Semester. The 2021 A

<p>Bachelor of Information Technology minors (select one):</p> <ul style="list-style-type: none"> • Applied Computer Science • Data Analytics • Information Systems Development • Information Technology Management • Networking and Security 	8 units
<p>Plus one of the following:</p> <ul style="list-style-type: none"> • 1 x 8-unit second major or • 2 x 4-unit minors or • 1 x 4-unit minor and 4 elective units <p>Students may complete a second major or up to 8 units from other USQ undergraduate programs subject to pre-requisite requirements and approval by the Program Director.</p>	8 units
Total	24 units

Required time limits

Students have a maximum of 9 years to complete the program.

Core courses



CSC3400 Database Systems	1, 3	1	1
CIS2005 Principles of Information Security	1, 2	2	2
CIS3003 Networks and Distributed Systems	1	1	1
CIS3008 Information Technology Service Management	1	1	1
CIS3009 Enterprise Systems in Practice	2, 3	2	2
CSC3502 Principles of Big Data Management	2	2	2

Networking and Security major

Course	Semester of offer Distance/Online	Semester of offer Toowoomba campus	Semester of offer Springfield campus
CSC2404 Operating Systems	2	2	2
CSC2408 Software Development Tools	1, 2	1, 2	1, 2
CSC3400 Database Systems	1, 3	1	1
CSC3407 Network Fundamentals and Routing	1	1	1
CSC3412 System and Security Administration	1	1	1
CSC3413 Network Design and Analysis	2	2	2
CSC3420 Mobile Internet Technology	1	1	1
CSC3427 Switching, Wireless and WAN Technologies	2	2	2

Minor Studies

A minor study is a coherent group of four units of courses that provides students with an appropriate breadth of study in their program. All students, except those undertaking a second major, must complete a 4-unit minor study. Students who wish to take a minor study not listed in the recommended minors must obtain permission from the Faculty of Business, Education, Law and Arts. Before undertaking any course, the pre-requisite courses must be completed or exempted.

Please note:

When students select a minor(s), courses will only count towards that minor(s) if they have not already counted towards another selected major or minor. Not all minors are available on-campus at all campuses. Students may choose courses from those listed in the [Minor Studies](#) section of this Handbook. Enrolment requirements must be satisfied for any course selected.

Electives/Approved courses

Students not completing a double major must select 4 units of elective courses from courses offered at undergraduate level in the area of Business, Law or Sciences or, with the approval of the Faculty of Business, Education, Law and Arts, from other undergraduate courses offered at the University of Southern Queensland. Pre-requisite enrolment requirements must be satisfied for any course selected.

CSC1402 will not be approved as an elective.

IT requirements

For information technology requirements please refer to the [minimum computing standards](#). Students completing either the Applied Computer Science major or the Networking and Security major will be required to install the Linux operating system as well as a Microsoft Windows operating system.

Other program requirements

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

Articulation

Students enrolled in the joint Diploma of Information Technology/Bachelor of Information Technology must complete the Diploma at TAFE Queensland before continuing enrolment at USQ.

Exit points

Students not wishing to complete the Bachelor of Information Technology may be permitted to exit with the Diploma of Information Technology (DITC) if they have completed 8 courses as follows:

- at least 2 core courses from the Bachelor of Information Technology
- 6 other courses from the Bachelor of Information Technology.

Please note that students who exit with the Diploma of Information Technology (DITC) may need to undertake further study to be eligible for membership of the [Australian Computer Society\(ACS\)](#).

Credit

Candidates for admission to the Bachelor of Information Technology program may be eligible for up to 16 units of credit on the basis of successful completion of relevant, equivalent undergraduate study from a recognised university or institution offering equivalent study. Credit approved in this program will not automatically apply to other programs offered by USQ. Claims for credit for previous study should be submitted prior to or at the time of enrolment. Each claim will be assessed on individual merit in line with USQ policy.

Note: Where credit is granted, maximum and minimum duration will be adjusted in the same proportion as credit, e.g. where 8 units of credit is granted, maximum time will be 6 years and minimum time will be 4 semesters.

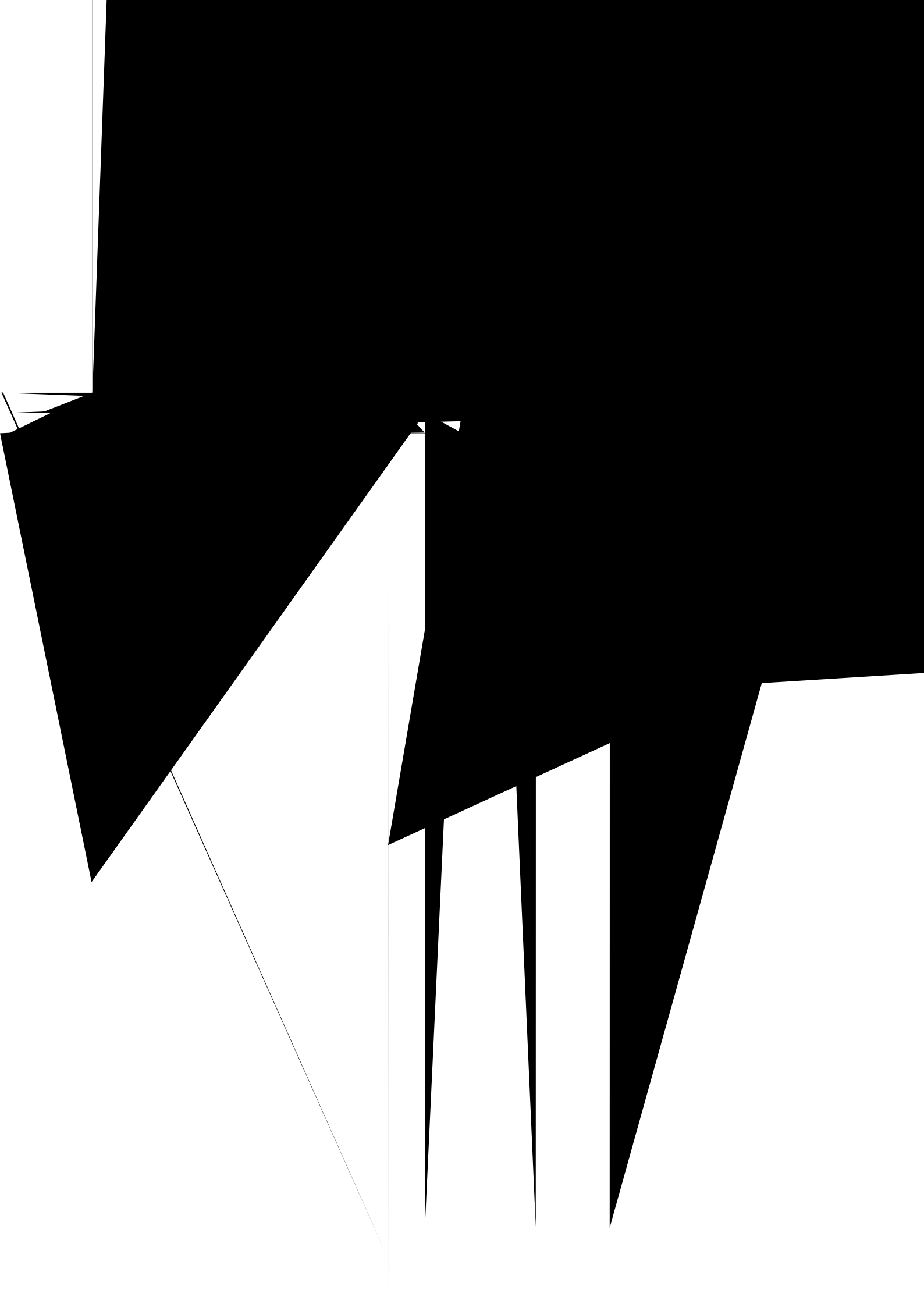
Recommended Enrolment Patterns

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.

Students should plan their enrolment making sure that they have fulfilled all core, major, minor and elective requirements as shown in the program structure information. Enrolment requirements must be satisfied before enrolling in a course.

Recommended Enrolment Pattern - Applied Computer Science (S1 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.



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Course Name	Credit Points						Prerequisites
	Semester 1		Semester 2		Semester 3		
	Units	ECTS	Units	ECTS	Units	ECTS	
CSC3400 Database Systems	2	1			2	1	Pre-requisite: CSC1401 or CIS1000 Enrolment is not permitted in CSC3400 if CIS2002 has been previously completed.
CIS3002 Agile Methods	2	1			2	1	Pre-requisite: CIS2000 or CSC2407
Year 3							
CSC3413 Network Design and Analysis	3	2			3	2	Pre-requisite: CSC3412
CSC3427 Switching, Wireless and WAN Technologies	3	2			3	2	Pre-requisite: CSC3407 or Students must be enrolled in one of the following Programs: GDTI or GCSC or GCEN or METC or MCOT or MCTE or MCOP or MPIT
CSC3420 Mobile Internet Technology	3	1			3	1	Pre-requisite: CSC3407 or Students must be enrolled in one of the following Programs: GDTI or GCSC or GCEN or METC or MCOT or MCTE or MCOP or MPIT
CSC3600 ICT Professional Project	3	1			3	1	Pre-requisite: Students must have satisfactorily completed CIS3002 Business Analysis and at least 16 courses including seven BITC core courses other than this course.
Elective/second major course	3	1			3	1	
Elective/second major course	3	1			3	1	