

Bachelor of Engineering and Bachelor of Business (BEBB) - BEng BBus

CRICOS code (International applicants): 030308J

	On-campus	Distance education
Semester intake:	Semester 1 (March) Semester 2 (July)	Semester 1 (March) Semester 2 (July)
Campus:	Toowoomba	-
Fees:	Commonwealth supported place International full fee paying place	Commonwealth supported place International full fee paying place
Standard duration:	5 years full-time, 8 years part-time or external	
Program articulation:	From: Associate Degree in Engineering ; Bachelor of Engineering Technology	

Notes:

See note on part-time study below within Admission requirements.

Contact us

Future Australian and New Zealand students	Future International students	Current students
Ask a question Freecall (within Australia): 1800 640 678 Phone (from outside Australia): +61 7 4631 5315 Email: studyeng@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 usqassist@usq.edu.au

Program focus

This degree program will provide students with the knowledge and skills to become a professional engineer with a strong background in business principles and practice. Students can combine studies in one of the Bachelor of Engineering majors with one eight-unit Bachelor of Business major. An Honours program can be undertaken in the final year of the program.

Career opportunities

Professional engineer and manager, management positions within the public or private sectors specialising in an engineering discipline.

Professional accreditation

A graduate of this program is eligible to apply for membership of Engineers Australia as a graduate Engineer. After further professional development, a graduate member with a Bachelor of Engineering may apply for chartered status as a Professional Engineer and, when granted, may use the post-nominal MIEAust CPEng.

The Bachelor of Engineering program is accredited by Engineers Australia and, through an agreement reached between the professional engineering bodies of other countries (the Washington Accord), is also recognised in the United Kingdom, the United States of America, Canada, Ireland, Hong Kong, New Zealand and South Africa.

Program aims

This combination of an Engineering program with a program in Business provides students with the opportunity to become qualified Engineers with a strong background in business principles and practice. There is an increasing need for engineering graduates to have business qualifications early in their career as they are often required to manage complex projects with both tight schedules and budgets. In some sectors of the industry a business qualification can be one of the criteria for promotion. Many engineers have completed a [Master of Business Administration](#) to satisfy this requirement. This program enables students to obtain qualifications in both disciplines at the same time.

The program offers students a high level of flexibility as they are able to choose wide ranging combinations of an engineering major and a business major that best suits their career aspirations.

For more details of the two programs that comprise this award, applicants are asked to refer to the Faculty of Business ([Bachelor of Business](#)) and Faculty of Engineering and Surveying ([Bachelor of Engineering](#)) parts of this Handbook.

Program objectives

Graduates of the Bachelor of Engineering and Bachelor of Business program will have met the separate objectives of the [Bachelor of Engineering](#) and the [Bachelor of Business](#) programs.

Admission requirements

Applicants shall normally:

- have studied four semester units and achieved an exit assessment of 'Sound Achievement' or better in each of the following Queensland Senior Secondary School subjects: English and Mathematics B. It is recommended that applicants should also have satisfactorily completed the subject: Physics, or
- be able to demonstrate that they have achieved an equivalent standard in these subjects at another institution, and
- **Australian applicants:** have achieved a Queensland Overall Position (OP) band, or an equivalent Rank based on qualifications and previous work experience, at or above the specified cut-off level
- **International applicants:** must have met the University's [English language](#) requirements or have completed the University's [ELICOS/UNIPREP](#) program.

Students may apply for admission to study part-time or by distance education once they have completed 16 units of the Bachelor of Engineering program or if they are eligible for advanced standing of 16 or more units. This ensures that they are able to complete the program in the maximum duration of eight years.

How to apply

Domestic students

[Application for undergraduate programs](#) may be made through the Queensland Tertiary Admissions Centre (QTAC). The same procedure applies whether you plan to study on-campus or by distance education.

If you completed Year 12 at a Queensland secondary school you will be assessed for entry on the basis of your Overall Position (OP) or equivalent score. Year 12 students from other states or territories are considered for entry on the basis of their UAI, ENTER or TER and the subject prerequisites indicated. Other applicants will be based on their overall Rank. You should ensure you submit your application by the [closing dates](#).

International students

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](#).

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

The program involves five years of full-time study and to be eligible for the combined award, full-time students must complete the requirements of the program within seven years of their initial enrolment in the program.

Students may apply for admission to study part-time or by distance education once they have completed 16 units of the Bachelor of Engineering program or if they are eligible for advanced standing of 16 or more units. This ensures that they are able to complete the program in the maximum duration of eight years.

Where students intend to complete the program using a combination of full-time and part-time study the maximum time for completion will be calculated on a pro-rata basis.

The combined Bachelor of Engineering and Bachelor of Business degree is a 40-unit program consisting of Academic courses and Practice courses.

Academic courses are normally one-unit courses that involve approximately 155 hours of student work per unit.

Practice courses are zero unit courses offered by the Faculty of Engineering and Surveying and each involves approximately 50 hours of student work. The only grades available for a Practice Course are Pass (P) and Fail (F). A Practice Course is designed to enable students to acquire specific competencies associated with their Engineering major study. These competencies range from specific practical and communication skills through to generic competencies relating to ethical and social responsibility, awareness of the environment, teamwork, etc. For an external student a Practice Course generally involves attendance on-campus for a one-week [residential school](#).

The components of the program are shown in the following table:

Program Component	Number of Academic Courses	Number of Practice Courses
Core Studies	16	3
Engineering Major Study	16	3-5 depending upon the major
Business Major Study	8	0
Total Courses	40	6 - 8
Total Units	40	0

Required time limits

Full-time students have a maximum of seven years to complete this program. Part-time or distance education students have a maximum of eight years to complete this program.

A pro-rata adjustment of the maximum time period will apply for those students who transfer from one mode of study to another. A pro-rata reduction in the maximum time period will apply to students who are admitted to a program with advanced standing.

Core courses

The courses that comprise the core studies program are shown in the following table:

Course	Units
Academic Courses - Business	
ECO1000 Economics	1
LAW1101 Introduction to Law	1
MGT1000 Organisational Behaviour	1
ACC1101 Accounting for Decision-Making	1
MKT1001 Introduction to Marketing	1
POL1000 Government, Business and Society or	1
FIN1101 Introduction to Financial Management	
Academic Courses - Engineering	
MAT1500 Engineering Mathematics 1	1
MAT1502 Engineering Mathematics 2()	1
MAT2500 Engineering Mathematics 3	1
ENG1100 Introduction to Engineering Design	1
ENG1101 Engineering Problem Solving 1	1
ENG2102 Engineering Problem Solving 2	1
ENG3103 Engineering Problem Solving 3	1
ENG4104 Engineering Problem Solving 4	1
ENG4111 Research Project Part 1	1
ENG4112 Research Project Part 2	1
Practice Courses - Engineering	
ENG1901 Engineering Practice 1	0
ENG3902	0
ENG4903 Professional Practice 2	0

Footnotes

- () [MAT1102 Algebra and Calculus I](#) may be studied in Semester 1 as an alternate course to the Semester 2 offering of [MAT1502 Engineering Mathematics 2](#), in order to provide a balanced workload between semesters.

When compared to the Core Studies program in the [Bachelor of Engineering](#) program the following changes have been made:

- the following courses have been deleted from the program: [ENG1001 Principles of Professional Engineering and Surveying](#), [ENG2002 Technology and Society](#), and [ENG3003 Engineering Management](#)
- six courses from the [Bachelor of Business](#) have been added to the program.

Major studies

Engineering majors

An Engineering major study provides students with knowledge and skills in a particular engineering discipline. Students must select one of the following eight majors as their Engineering major.

Engineering major studies:
Agricultural Engineering
Civil Engineering
Computer Systems Engineering
Electrical and Electronic Engineering

Environmental Engineering
Mechanical Engineering
Mechatronic Engineering
Power Engineering
Software Engineering

The courses in each of the Engineering majors are listed in the [Bachelor of Engineering](#) entry in the Faculty of Engineering and Surveying section of this Handbook. Students enrolled in the Bachelor of Engineering and Bachelor of Business program only study 16 of the 19 courses listed in an Engineering major.

The three courses that are not studied in each major are listed in the following table:

Engineering Major	Courses to be Deleted from the Major
Agricultural Engineering	3 Electives
Civil Engineering	3 Electives
Computer Systems Engineering	1 Elective and ENG4004 Engineering Management Science and ELE2504 Electronic Design and Analysis
Electrical and Electronic Engineering	2 Electives and ENG4004 Engineering Management Science
Environmental Engineering	3 Electives
Mechanical Engineering	1 Elective and ENG4004 Engineering Management Science and MEC3403 Dynamics II
Mechatronic Engineering	1 Elective and ENG4004 Engineering Management Science and ELE2504 Electronic Design and Analysis
Power Engineering	3 Electives
Software Engineering	2 Electives and CSC3406 Computer Graphics

Students should select any remaining Electives from the appropriate list for their engineering major.

Business majors

Students must select a business major from one of the following eight-unit majors:

Business major studies:
Administrative Management
Human Resource Management
Management and Leadership
Marketing
Supply Chain Management
Tourism Management

Note: With the permission of the Dean of the Faculty of Engineering and Surveying students may select an alternative major from the [Bachelor of Business](#) or the [Bachelor of Commerce](#). The eight courses that comprise each of the business majors are listed in the relevant sections of this Handbook.

IT requirements

Students should refer to the section entitled [Access to Information Technology Facilities](#) in the General Faculty and Program Information section of this Handbook.

Exit points

Students who, for whatever reason, are unable to complete the Bachelor of Engineering and Bachelor of Business and who satisfy all of the requirements of either the [Bachelor of Engineering](#), the [Bachelor of Engi](#)

neering Technology, the [Associate Degree in Engineering](#) or the Diploma of Engineering Studies (refer back to the 2006 USQ Handbook), may be permitted to exit with that award.

Course transfers

Students who are enrolled in either the [Bachelor of Engineering](#) program or the [Bachelor of Business](#) program may transfer to the program with advanced standing. If they have completed up to one year of one of those programs they would normally be able to complete the program in the minimum time, after four more years of full-time study. Other students may require longer than the minimum time.

Honours

The Bachelor of Engineering and Bachelor of Business may be awarded with Honours in the engineering component of the award. The class of honours to be awarded to a student is dependant upon:

- the Grade Point Average calculated from the grades achieved in the courses studied in, or transferred to, the program
- the grade achieved by the student in the courses [ENG4111 Research Project Part 1](#) and [ENG4112 Research Project Part 2](#) (unless the student is exempted from these courses).

The minimum levels of achievement normally required for each class of honours are shown in the following table. To be assured of achieving a particular class of honours students must have achieved the specified grade in the research project courses and the minimum GPA requirements for all of the courses studied, for the last 16 courses studied, or for the last eight courses studied.

Class of Honours	GPA Calculated from the Grades Achieved in:			Minimum Grade Achieved in Research Project Courses
	All Courses Studied in the Program	The Last 16 Courses Studied*#	The Last Eight Courses Studied*#	
First Class Honours	6.0	6.2	6.5	A
Second Class Honours - Division A	5.5	5.7	5.9	B
Second Class Honours - Division B	5.0	5.1	5.3	C
Minimum number of courses required	20	16	8	

Footnotes

- * The results from courses [ENG4111](#) and [ENG4112](#) must be included (unless the student is exempted from these courses).
The best results in a semester are to be used when not all of the results from a semester are required.

Other information

To be eligible to graduate from the Bachelor of Engineering, students must obtain an aggregate of at least 12 weeks of suitable practical experience during their program. This experience may be in an engineering office or laboratory where the student would be working principally with professional engineers and engineering associates. It may, however, be preferable for students to spend some time in field or factory activities to gain insight into industrial practice and to see what is involved in converting designs into finished products. Students are required to keep a record of such experience in the Practical Experience Record Book available in the [ENG4903 Professional Practice 2](#) Practice Book and on the [ENG4903](#) website http://www.usq.edu.au/eng_surv/students/enrolment/project/default.htm. The Record Book is to be endorsed by an appropriate person in the organisation providing the experience and by the student's Head of Discipline. The student must meet all costs associated with the acquisition of practical experience to satisfy this requirement. The Record Book must be made available for perusal by the Head of Discipline upon request. The acceptability or otherwise of employment experience, and the period of that type of experience that may be credited towards the 12 weeks, will be determined by the Head of Discipline.

Recommended enrolment patterns

Due to the large number of combinations of engineering and business majors available separate recommended enrolment pattern tables are not printed in this Handbook.

Commencing on-campus students should enrol in the standard first year courses in the engineering major that they have selected except that they should study a first level core business course instead of [ENG1001 Principles of Professional Engineering and Surveying](#). Towards the end of their first year they should consult their Program Coordinator for advice on the enrolment pattern to be followed in later years of the program.