

**FACULTY OF
BUILT ENVIRONMENT
AND ENGINEERING**

**BUILT
ENVIRONMENT
& ENGINEERING**

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FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Course Structures

□ Course Requirements and Notes Relating to Postgraduate Courses

Course Progression

It is important that students follow as normal a progression through their courses as possible. Units should be taken in an orderly sequence as set out in published course structures. Units failed should be picked up in the next semester they are offered. Prerequisite units must normally be passed before a student may proceed to a further unit which has the prerequisite so specified. The Course Coordinator should be consulted regarding variations from the course structure. This is considered to be a major concession. Students who have failed units or have doubts about having the necessary background to proceed should seek the advice of the Course Coordinator.

Supplementary Assessment

It is not normally Faculty policy to grant supplementary examinations. However, at the discretion of the Dean of the Faculty, supplementary or further assessment may be permitted in cases where a student is near to the completion of their course.

In such cases it is normal policy to award an 'A' (Result Unfinalised) and to give the student further assessment. Following satisfactory completion of this further assessment, the highest grade which may normally be awarded is a grade of 3 (Pass Conceded).

School of Civil Engineering Safety Shoes Policy

Students enrolled in units specified by the School of Civil Engineering will be required to wear safety shoes for some laboratory practicals and/or field trips. Students not wearing appropriate safety shoes on these occasions will be barred from (i) participating in activities in these units, and (ii) submitting any assessment associated with these activities. Hard hats and safety glasses/goggles will be supplied by the School of Civil Engineering as required.

■ Master of Applied Science (Research) (BN71)

■ Master of Engineering (BN72)

Location: Gardens Point campus

Duration:

Full-Time: 1 year minimum (2 semesters), 2 years maximum (4 semesters)

Part-Time: 2 years minimum (4 semesters), 4 years maximum (8 semesters)

Course Coordinators:

Master of Applied Science (Research): Dr Keith Hampson

Master of Engineering: Dr M. Mahendran

Introduction

The objectives of the program are:

- to provide instruction and postgraduate educational opportunities in design,

investigation, development, research or any combination thereof, in the specialised fields of applied science relating to the built environment or directly related to professional engineering practice, by means of a program which involves either an advanced contribution to knowledge or an advanced application of existing knowledge

- to provide further education in research methods
- to enable graduate employed in industry to undertake further education by research and thesis
- to further relationships between the University and industry or other external agencies involved in applied science or engineering to their mutual advantage, and
- to provide formal recognition of work of an advanced nature.

1. General Conditions

1.1 The Council of the Queensland University of Technology was established in 1989 under the *Queensland University of Technology Act 1988*.

1.2 The Council's power to approve recommendations from Faculty academic boards regarding the registration, supervision and examination of research degree candidates and to develop policy and procedures relating to research degrees is exercised through a Research Management Committee which is a subcommittee of University Academic Board.

1.3 Research Management Committee has delegated responsibility for day-to-day administration of research Masters degree courses to Faculty academic boards. Academic boards shall report biannually to Research Management Committee on progress made by research Masters degree candidates.

1.4 This program is administered by the Academic Board of the Faculty of Built Environment and Engineering through its Faculty Research Committee. The program is offered in Architecture, Civil Engineering, Construction Management, Electrical and Electronic Systems Engineering, Industrial Design, Interior Design, Landscape Architecture, Mechanical and Manufacturing Engineering, Planning and Surveying.

1.5 In order to qualify for the award of the degree of Master of Applied Science (Research) or Master of Engineering a candidate must:

- have completed the approved program involving advanced work under the supervision of a Thesis Panel prescribed by the Faculty Research Committee of the Built Environment and Engineering Academic Board
- have submitted and the Faculty Research Committee accepted a thesis, together with reports and/or documents where applicable, prepared under the supervision of the Thesis Panel
- have completed such other work as may be prescribed by the Faculty Research Committee, and
- submit to the Faculty Research Committee a declaration signed by the candidate that they have not been a candidate for another tertiary award without permission of the Faculty Research Committee.

2. Registration

2.1 Applications shall be accepted subject to the availability of facilities and supervision.

2.2 Applications may be lodged with the Registrar at any time.

2.3 There is a six-month maximum period between acceptance by the Faculty Research Committee and enrolment by the candidate in the Master of Applied Science (Research) or Master of Engineering before the offer of admission to the program lapses. Candidates are required to complete an enrolment form each semester.

A Note Regarding Enrolment

Please advise the Faculty Office and Enrolments Section of the University as soon as possible if there are any changes to your name, address or other personal details. You must submit a completed 'Change to Enrolment' form to the Enrolments Section. You may apply to change from full-time to part-time or vice versa, using Form I – 'Intra-faculty Changes'. This form must be accompanied by a note of recommendation from your supervisor and forwarded to the Faculty Research Committee. Applications must detail your intentions on attendance and employment – see 'Attendance status, time limits and employment'.

2.4 The minimum academic qualifications for admission to the Master of Applied Science (Research) or Master of Engineering are:

- a four-year degree in an appropriate discipline in which the candidate has received at least Honours 2A from the Queensland University of Technology, or
- a qualification judged equivalent by the Faculty Research Committee, or
- a grade point average of 5.0 or better in a graduate diploma program, in a relevant discipline, together with demonstrated potential for further study and/or evidence of professional standing, or
- a grade point average of 5.0 or better in a coursework Masters degree program in a relevant discipline, together with demonstrated potential for further study and/or evidence of professional standing.

An applicant for the Master of Applied Science (Research) or Master of Engineering program without the minimum entry requirement may present a case for admission based on the submission of evidence of qualifications which demonstrate the applicant's capacity to pursue the course of study.

The case may be based on the following:

- (a) three years' professional experience in the general field in which the proposed work lies, or
- (b) satisfactory completion of an appropriate Masters qualifying program including formal coursework and/or reading program in related fields stipulated by the Faculty Research Committee, or
- (c) the submission of technical publications or other appropriate evidence which satisfies the Faculty Research Committee that advanced knowledge has been acquired in a branch of applied science relevant to the built environment or a division of engineering in which the applicant has worked as a professional practitioner in a position of responsibility. This knowledge should be relevant to the field of study proposed.

2.5 A candidate shall be registered as a graduate student if they are considered by Faculty Research Committee to meet the requirements for entry.

2.6 A candidate shall receive confirmed registration as a graduate student when they:

- have satisfied the requirements for admission and achieved by work and study a standard recognised by Faculty Research Committee, or
- have satisfied Faculty Research Committee that they are a suitable person to undertake the program, and
- have satisfied Faculty Research Committee that they can devote sufficient time to the research and study.

2.7 In considering an applicant for registration, the Faculty Research Committee shall, in addition to assessing the applicant's suitability, be satisfied that:

- the proposed program is relevant to the aims and objectives of the University
- the proposed program has relevance to the needs of society or industry, and
- adequate resources are available to support the proposed program.

2.8 An application for registration should set out systematically and fully the candidate's intended course of study including the following:

- a description of the area of study within which the candidate's course lies
- a summary of the work to be undertaken, the proposed title of the thesis to be written, the aim of the proposed program, its background, the significance and possible application of the research program, and the research plan
- the location at which the work will be undertaken, the amount of time which will be devoted to it and the resources required
- details of academic qualifications and supporting evidence, including copies of results for each year of courses undertaken
- a brief account of industrial experience
- a list of publications
- sponsorship details
- statement of approval by Head of School and/or Director of Centre, and
- any other relevant material.

2.9 The program is offered on a full-time or a part-time basis and may be undertaken externally. Part-time students normally will be employed in some professional capacity during the day and carry out their research projects on a part-time basis at QUT, in their place of employment or in a sponsoring organisation.

2.10 Full-time students may be on a scholarship from industry or QUT, and may carry out their research at QUT or in a sponsoring organisation. Normally full-time students would be expected to work on their research projects at QUT for not less than three-quarters of a normal working week, averaged over each year of candidacy. Such a candidate may not devote more than 300 hours annually to teaching activities, including preparation and marking.

2.11 A candidate may be based at QUT or at a place of employment or sponsoring institution. Normally, support of the sponsoring institution for the candidate's application is required for registration. A candidate may also be external where their residence is outside of Brisbane.

2.12 The Faculty Research Committee may cancel a candidate's registration if:

- after consulting a candidate's supervisors and having taken account of all relevant circumstances, the Committee is of the opinion that the candidate either has effectively discontinued their studies or has no reasonable expectation of completing the course of study within the maximum time allowed (see Section 4).

2.13 A candidate whose registration has lapsed or has been cancelled, and who wishes subsequently to re-enter the course of study to pursue a research program which is substantially the same as the previous investigation may be re-admitted under such conditions as the Faculty Research Committee shall prescribe.

3. Course of Study

3.1 A candidate for the degree of Master of Applied Science (Research) or Master of Engineering will undertake a program of research and investigation on a topic approved by the Faculty Research Committee.

3.2 All projects should be supported by outside agencies such as industry, government authorities and professional organisations, or by QUT itself. This provision is to ensure that programs are relevant to the aims of the University and the community. It is important that projects be primarily directed towards society or industry need.

3.3 The program must be such as to enable the candidate to develop and demonstrate a level of scientific competence significantly higher than that expected of a first degree graduate. The required competence normally would include mastery of relevant techniques, investigatory skills, critical thinking, and a high level of knowledge in the specialist area.

3.4 Where advised, a candidate may be required to complete satisfactorily a program of formal coursework in subjects relevant to the field of study up to a total class contact of 48 credit points.

3.5 The course of study normally will include:

- participation in University scholarly activities such as research seminars, teaching and publication
- regular face-to-face interactions with supervisors, and
- a program of supervised research, design, investigation, development, construction, or any combination thereof.

The course of study may also include a program of assessed coursework.

3.6 Coursework at Masters level demands a capacity for critical analysis and a specialisation of research interests not normally appropriate for an undergraduate program. Such coursework may be conducted in a number of ways:

- as advanced lecture courses
- as seminars in which faculty and candidates present critical studies of selected problems within the subject field
- as independent study or reading courses, or
- as research projects conducted under Faculty supervision.

Candidates will be encouraged to attend conferences where these are related to the field of the research.

In all cases, coursework will be based upon a formal syllabus setting out the educational outcomes expected from the course, a list of topics to be covered, the prescribed reading material and the method of assessment of progress through and at the end of the course.

3.7 Maximum and Minimum Coursework Requirements:

Thesis	A minimum of two-thirds of the degree
Maximum coursework requirement ¹	64 credit points
Minimum coursework requirement	12 credit points
Normal coursework requirement	24 to 36 credit points

3.8 Components of Coursework:

(a) Compulsory requirement for all students in the Faculty:

IFN001 Advanced Information Retrieval Skills	4 credit points
Attendance & Participation in School and/or Research Centre or Concentration Seminar/ Workshop	6 to 12 credit points

¹ Maximum of 16 credit points per semester for each semester enrolled in the program.

(b) Components determined by School and/or Research Centre or Concentration – Core or Elective

Units assessed by formal graded assessment	24 credit points maximum
Maximum units assessed by satisfactory/unsatisfactory or merit by student	24 credit points maximum
Specific tailor-made reading courses supervised by supervising panel or individual member of staff	24 credit points maximum

Students must contact their Course Coordinator to finalise their program.

4. Period of Time for Completion of Course of Study

4.1 The duration of study for candidates with four years of relevant study at tertiary level will normally be a minimum of one year and a maximum of two years or the part-time equivalent. Candidates who do not have a four-year degree or its equivalent will normally need to undertake a year of full-time coursework or equivalent whilst enrolled in the research degree.

4.2 In order to encourage completion of research degrees within a reasonable timeframe, QUT has set a limit of two years on the length of time for which it will fund a Faculty for full-time research Masters degree candidates.

4.3 A registered graduate full-time student shall present the thesis for examination after a period of at least one year but not more than two years has elapsed from the time of confirmed registration. A registered graduate part-time student shall present the thesis for examination after a period of at least two years. The maximum time is four years from the time of confirmed registration. In special cases the Faculty Research Committee may approve a shorter period.

4.4 Time limits are measured in years from the time of first registration as a graduate student. Periods of exclusion or absence with or without approval are included.

4.5 Candidates who exceed these limits may be asked to show cause why they should not have their registration in the program terminated. Such candidates must make formal application to the Faculty Research Committee to have their registration extended beyond the normal time. Details of the candidate's progress shall be presented to the Committee together with the reasons for the delay in completing the course and the expected date of completion. Where the Committee agrees to an extension, a time limit will be set for the maximum period of registration in the program.

4.6 Candidates are notified of exclusion by registered mail. They have right of appeal to the Academic Appeals Committee.

5. Supervision

5.1 The Faculty Research Committee shall appoint two or more supervisors with appropriate experience in respect of each candidate. One shall be nominated as the Principal Supervisor and others as Associate Supervisors. The supervisors shall form a Thesis Panel.

5.2 The Principal Supervisor shall normally be from the academic staff of the QUT School in which the candidate is enrolled.

5.3 The Thesis Panel shall supervise all aspects of the candidate's work program, shall receive reports from the candidate on progress and shall recommend both on successful and unsuccessful completion of components of the coursework incorporated in the candidate's program, on progress on the thesis research project and on continued enrolment.

5.4 The Thesis Panel shall receive a formal oral and written report from the candidate at least once every semester on progress on the research project.

6. Place and Conditions of Work

6.1 The research program will normally be carried out under supervision in a suitable environment within Brisbane. However, external study is possible. External candidates will be required to spend a minimum of four weeks at QUT annually.

6.2 The Faculty Research Committee shall not admit a candidate to a program of research based at the University unless it has received:

- a supporting statement from the Head of the QUT School and/or Director of Centre in which the study is proposed that, in their opinion, the applicant is a suitable person to undertake a research program leading to the Masters degree, that the program is supported, that the School or Centre is willing to undertake the responsibility of supervising the work of the applicant and that resources are available to support the proposed research.

6.3 The Faculty Research Committee shall not admit a candidate to a program of research based at a sponsoring establishment unless it has received:

- a supporting statement from the employer or director of the sponsoring institution that they are aware of the course rules and are prepared to sponsor and support the applicant, that the applicant will be provided with facilities and time to undertake the research project and that they are willing to accept responsibility for supervising the applicant's work, and
- a supporting statement from the head of the QUT School or Director of Centre in which the study is proposed that, in their opinion, the applicant is a suitable person to undertake a research program leading to the Masters degree, that the program is supported, and that after examination of the proposed external facilities and supervision, the School/Centre is willing to accept the responsibility of supervising the work.

7. Thesis

7.1 In the form of presentation, availability and copyright, the thesis shall comply with all the requirements of the document Requirements for Presenting Theses (Appendix 51 in the Manual of Policies and Procedures).

7.2 A candidate shall submit the title of their thesis for approval by the Faculty Research Committee with their application, and after approval has been granted, no change will be made except with the permission of the Committee.

7.3 The candidate shall give two months' written notice of intention to submit their thesis through the Principal Supervisor.

7.4 The thesis shall comply with the following requirements:

- A significant proportion of the work described (as determined by the Faculty Research Committee) must have been carried out subsequent to initial registration for the Masters degree.
- It must describe a program of work carried out by the candidate and must involve either an advanced contribution to the knowledge of the subject or an advanced application of existing knowledge.
- It must reach a satisfactory standard of literary presentation.
- It shall be the candidate's own account of the work. Where work is carried out conjointly with other persons, the Faculty Research Committee shall be advised of the extent of the candidate's contribution to the joint work.
- The thesis shall not contain as its main content any work or material which the candidate has previously submitted for another degree or similar award.

- The thesis may consist primarily of reports, plans and/or documents or may be supported by these if they have a bearing on the subject of the thesis. Other supporting documents such as published papers may also be submitted with the thesis.
- The thesis shall contain an abstract of not more than 300 words.

7.5 Except with the specific permission of the Faculty Research Committee, the thesis must be presented in the English language. Such permission must be sought at the time of application for registration, and will not be granted solely on the grounds that the candidate's ability to satisfy the examiners will be affected adversely by the requirement to present the thesis in English.

7.6 Subject to QUT's Intellectual Property policy, the copyright of the thesis is vested in the candidate.

7.7 Where a candidate or the sponsoring establishment wishes the thesis to remain confidential for a period of time after completion of the work, application for approval must be made to the Faculty Research Committee when the thesis is submitted. The period normally shall not exceed two years from the date on which the examiners recommend acceptance of the thesis, during which time the thesis will be held on restricted access in the QUT Library.

8. Examination of Thesis

8.1 The Faculty Research Committee shall appoint two/three examiners, of whom at least one shall be from outside of the University. No supervisor of the candidate shall be appointed as one of the examiners.

8.2 Normally, examiners must agree to read and report upon the thesis within two months of its receipt.

8.3 A candidate may be required to make an oral defence of the thesis.

8.4 On receipt of the reports from the examiners, the Faculty Research Committee shall:

- (a) recommend that the thesis be accepted without modification, and to Academic Board that the candidate be awarded the degree, or
- (b) recommend to Academic Board that the candidate be awarded the degree, after any minor amendments requested by the examiners have been made, or
- (c) recommend that the thesis not be accepted until major revisions have been made. Such revisions might be rewriting one of the sections, with or without additional work, or
- (d) not accept the thesis and terminate the candidate's registration.

8.5 If the examiners' reports are conflicting, the Faculty Research Committee may, after appropriate consultation with the Thesis Panel, resubmit the thesis to the examiners with copies of the examiners' reports and/or seek the advice of a further external examiner. After due consideration of further reports from the examiners, a majority decision will be accepted by the Faculty Research Committee.

■ Master of Built Environment (BN73)

URBAN DESIGN MAJOR

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Coordinator: To be advised

Entry Requirements

NORMAL ENTRY

A grade point average of 5.0 or better in the Graduate Diploma in Urban Design at the completion of one semester full-time or two semesters part-time.

PROVISIONAL ENTRY

Applicants with other than normal entry requirements may be registered provisionally in the course if they submit other evidence of academic and professional attainment and candidature is approved by the Dean of the Faculty on the recommendation of the Course Coordinator.

A person provisionally enrolled is required to satisfactorily undertake a qualifying program which may include course units, and/or such other work as is determined before admission is confirmed. Provisional registration in the course will apply for a maximum period of 12 months for both full-time and part-time students.

Articulation to the Masters Program from the Graduate Diploma in Urban Design

Applicants are considered initially for acceptance in the Graduate Diploma in Urban Design. At the completion of one semester for full-time students and at the completion of two semesters for those studying part-time, students will be considered for enrolment in the Master of Built Environment (Urban Design). A grade point average of 5.0 or better in the course is normally required for progression to the Masters level.

Focus in the Masters Program

The Masters program includes skills and knowledge development through set coursework in common with the Graduate Diploma in Urban Design, but also requires individual research and the writing of a dissertation.

Course Requirements

Students must complete a minimum of 48 credit points per semester in the full-time course and a minimum of 24 credit points per semester in the part-time course.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
IFN001	Advanced Information Retrieval Skills	4	1
PSN004	Applied Research Techniques	4	1
PSP401	Urban Design Analysis Studio	12	3
PSP403	Urban Design Conjecture Studio	12	3
PSP421	History of Urban Systems	4	1
PSP424	Urban Design Theory & Criticism	4	1
Plus a selection from the following totalling at least 8 credit points:			
CNP439	Property Management	6	2
PSP011	Conservation Theory	3	1
PSP411	Environmental Psychology	4	2
PSP416	Computer Aided Data Analysis	2	1
PSP442	Law & Legislation in Urban Design	4	1
Year 1, Semester 2			
PSN099	Dissertation	24	
PSP402	Urban Design Context Studio	12	3
PSP405	Urban Design Field Studies	4	10 days
Plus a selection of the following totalling a minimum of 8 credit points:			
PSN002	Concentration Studies A	4	1
PSN003	Concentration Studies B	8	2

PSP011	Conservation Theory	3	1
PSP432	Urban Landscape	4	1
PSP434	Urban Services & Functions	4	1
PSP441	Computer Applications in Urban Design Elective Unit/s	4	1

Part-Time Course Structure

Year 1, Semester 1

IFN001	Advanced Information Retrieval Skills	4	1
PSP401	Urban Design Analysis Studio	12	3
PSP421	History of Urban Systems	4	1
PSP424	Urban Design Theory & Criticism	4	1

Year 1, Semester 2

PSP402	Urban Design Context Studio	12	3
PSP405	Urban Design Field Studies	4	10 days

Plus a selection from the following totalling at least 8 credit points:

PSP011	Conservation Theory	3	1
PSP416	Computer Aided Data Analysis	2	1
PSP432	Urban Landscape	4	1
PSP434	Urban Services & Functions	4	1
PSP441	Computer Applications in Urban Design	4	1

Year 2, Semester 1

PSN004	Applied Research Techniques	4	1
PSP403	Urban Design Conjecture Studio	12	3

Plus a selection of the following totalling a minimum of 8 credit points:

CNP439	Property Management	6	2
PSP011	Conservation Theory	3	1
PSP411	Environmental Psychology	4	2
PSP416	Computer Aided Data Analysis	2	1
PSP442	Law & Legislation in Urban Design	4	1

Year 2, Semester 2

PSN099	Dissertation	24	
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■ Master of Engineering Science (Civil) (CE74)

Location: Gardens Point campus

Course Duration: 2 years part-time

Total Credit Points: 96

Standard Credit Points/Part-Time Semester: 24

Course Coordinator: Dr Luis Ferreira

Entry Requirements

Entrants to the Masters degree program must either:

- (i) have obtained a Bachelor of Engineering degree with Honours in Civil Engineering, or
- (ii) have obtained a Graduate Diploma with a grade point average of at least 5.0 on a 7-point scale.

Where entrants do not have Honours ranking in their Bachelor of Engineering (Civil) degree and/or have not undertaken units equivalent to the available QUT undergraduate units in their chosen area of study, the Head of School may require that additional undergraduate units be undertaken.

Entrants may transfer from the Graduate Diploma in Municipal Engineering (CE63) with a grade point average of at least 5.0 after completion of 50 per cent of the coursework for

the Graduate Diploma. In so doing students must comply with rule 4.1.1 of the Student Rules which states 'for courses of up to and including one year of equivalent full-time study, credit may be given for a maximum of one half of the credit points required for course completion'.

Graduates who have completed the prescribed units for a major will have their award certificates and academic transcripts endorsed 'Majoring in...'

Course Structure

The course consists of a minimum of 96 credit points. Either 36 or 20 credit points are allocated to a project and the remainder to the non-project units. The majority of the units are common with the Graduate Diploma in Municipal Engineering (CE63). Students who do not wish to undertake a major must complete the core units plus any other combination of units, to make up the minimum total of 96 credit points. Such programs should be devised in consultation with the Course Coordinator.

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CEP131	Engineering Management & Administration	12	3
	Units chosen from major	12	
Year 1, Semester 2			
CEP200	Process Modelling	8	2
	Units chosen from major	16	
Year 2, Semesters 1 and 2			
Select one of the following options:			
<i>Option 1</i>			
CEP999/1/2	Project A ²	36	9
	Units chosen from major totalling	12	
<i>Option 2</i>			
CEP998/1/2	Project B ²	20	5
	Units chosen from major totalling	28	

		Year and Semester of Offer	Credit Points	Contact Hrs/Wk
ENVIRONMENTAL ENGINEERING MAJOR (EVN)				
Compulsory units:				
CEP172	Water Quality Engineering	even, 1	8	2
CEP277	Waste Management	even, 2	12	3
CEP290	Environmental Law & Assessment ³	odd, 2	8	2
Choose remaining units from the following:				
CEP128	Municipal Engineering Planning	even, 1	12	3
CEP174	Public Health Engineering Practice	odd, 1	12	3
CEP276	Advanced Treatment Processes	odd, 2	8	2
CEP310	Urban Transportation Planning	even, 2	8	2
CEP361	Drainage Engineering	odd, 2	8	2
CHP691	Environmental Chemistry	even, 2	8	2

LOCAL GOVERNMENT ENGINEERING MAJOR (LGN)

Compulsory units:

CEP107	Construction Management & Economics	odd, 1	8	2
CEP127	Road & Traffic Engineering	odd, 1	12	3
CEP128	Municipal Engineering Planning	even, 1	12	3

² Safety boots must be worn for practical exercises and field trips.

³ CEP290 Environmental Law and Assessment may be offered in even years, Semester 2, in conjunction with a Bachelor of Engineering elective unit.

Choose remaining units from the following:

CEP109	Municipal Law & Regulations	even, 2	8	2
CEP174	Public Health Engineering Practice	even, 1	12	3
CEP290	Environmental Law & Assessment ⁴	odd, 2	8	2
CEP361	Drainage Engineering	odd, 2	8	2

PUBLIC HEALTH ENGINEERING MAJOR (PHN)

Compulsory units:

CEP172	Water Quality Engineering	even, 1	8	2
CEP174	Public Health Engineering Practice	odd, 1	12	3
CEP276	Advanced Treatment Processes	odd, 2	8	2
CEP277	Waste Management	even, 2	12	3

Choose remaining units from any other major.

TRANSPORTATION ENGINEERING MAJOR (TRN)

Compulsory units:

CEP127	Road & Traffic Engineering	odd, 1	12	3
CEP215	Advanced Traffic Engineering	odd, 2	8	2
CEP218	Transportation Engineering	even, 1	12	3
CEP310	Urban Transportation Planning	even 2	8	2

Choose remaining units from any other major.



■ Master of Engineering Science (Computer and Communication Engineering) (EE76)

This course code (EE76) replaces course code (EE75).

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Associate Professor Anthony Maeder

Entry requirements

- (i) Bachelor degree in Engineering with at least second class Honours or equivalent, or
- (ii) Bachelor degree in Engineering or equivalent together with successful completion of the Masters Qualifying Program
- (iii) Graduate Diploma in Computer Engineering with a grade point average (GPA) of 5.0 (credit level) or higher will meet the entry requirements for admission to the Master of Engineering Science (Computer Engineering Stream) Upgrade Program.

Streams

Two streams are offered in the course: Computer Engineering and Communication Engineering. Students enrol in units according to the stream they wish to pursue. Any requests for approval to substitute different units should be directed to the Course Coordinator.

Masters Qualifying Program

Applicants who do not meet the entry requirements for the Master of Engineering Science (Computer and Communication Engineering) outlined in (i) above, will be required to enrol in the first semester of the Graduate Diploma in Computer Engineering (EE65). If in

⁴ CEP290 *Environmental Law and Assessment* may be offered in even years, Semester 2, in conjunction with a Bachelor of Engineering elective unit.

this first semester a sufficiently high standard is attained, then candidates will be invited to change enrolment to the Masters program. Otherwise they will continue their studies in the Graduate Diploma in Computer Engineering towards that award.

Masters Upgrade Program

Those who have completed the Graduate Diploma in Computer Engineering may upgrade by undertaking further study in the Master of Engineering Science (Computer Engineering Stream) and be given credit for the units which they have completed at graduate diploma level. The structure of the course dictates that this upgrade program be undertaken on a part-time basis.

Students undertaking the Masters Upgrade Program will enrol in the following units:

		Credit Points	Contact Hrs/Wk
EEP301	Project	12	1
EEP302	Research Component 1 (Computer Engineering Stream)	12	

Methods of Assessment

Assessment is undertaken in six coursework units and two research units. The coursework units are common with the Graduate Diploma in Computer Engineering. However, Masters students must undertake an additional research training assessment for each coursework unit. These six additional assessments constitute the Research Component unit. Also, an individual research project under academic supervision must be completed. Candidates who have completed the Graduate Diploma in Computer Engineering will be required to complete both the Project and the Research Component, undertaking additional assessment for each coursework unit credited towards the Graduate Diploma.

COMPUTER ENGINEERING STREAM

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
EEP101	Algorithms for Control Engineering	12	3
EEP102	Unix & C for Engineers	12	3
EEP124	Data Communications	12	3
Select one unit from the following:			
EEP129	Image Processing & Computer Vision	12	3
EEP137	Advanced Topic A	12	3

Year 1, Semester 2

EEP104	Real-time Operating Systems	12	3
EEP301	Project	12	1
EEP302	Research Component 1	12	
Select one unit from the following:			
EEP120	Networks & Distributed Computing	12	3
EEP127	Advanced Topic B	12	3

Part-Time Course Structure

Year 1, Semester 1

EEP101	Algorithms for Control Engineering	12	3
Select one unit from the following:			
EEP102	Unix & C for Engineers	12	3
EEP137	Advanced Topic A	12	3

Year 1, Semester 2

EEP104	Real-time Operating Systems	12	3
Select one unit from the following:			

EEP120	Networks & Distributed Computing	12	3
EEP127	Advanced Topic B	12	3

Year 2, Semester 1

EEP124	Data Communications	12	3
EEP129	Image Processing & Computer Vision	12	3

Year 2, Semester 2

EEP301	Project	12	1
EEP302	Research Component 1	12	

COMMUNICATION ENGINEERING STREAM

Full-Time Course Structures

Year 1, Semester 1

EEP126	Communications Digital Signal Processing	12	3
EEP135	Advanced Digital Signal Processing	12	3
EEP137	Advanced Topic A	12	3
	Mathematics Elective Unit	12	3

Year 1, Semester 2

EEP127	Advanced Topic B	12	3
EEP128	Detection & Estimation	12	3
EEP301	Project	12	3
EEP303	Research Component 2	12	

Part-Time Course Structure

Year 1, Semester 1

EEP126	Communications Digital Signal Processing	12	3
EEP135	Advanced Digital Signal Processing	12	3

Year 1, Semester 2

EEP127	Advanced Topic B	12	3
EEP128	Detection & Estimation	12	3

Year 2, Semester 1

EEP137	Advanced Topic A	12	3
	Mathematics Elective Unit	12	3

Year 2, Semester 2

EEP301	Project	12	1
EEP303	Research Component 2	12	

Advanced Topics A and B Subject List

Advanced Topics will vary from year to year depending on staff areas of interest. They may include topics from the following list. Only one of these units will be offered per semester. Other units at a suitable academic level may be substituted, with the approval of the Course Coordinator.

- Adaptive Filtering & Array Processing
- Digital Spectral Analysis
- Stochastic Processes
- Parallel & Supercomputing
- Advanced Engineering Software Tools
- Process Control & Robotics
- Computer Hardware & Interfacing
- Any core unit of other stream

■ Master of Engineering Science (Electricity Supply Engineering) (EE78)

Location: Gardens Point campus
Course Duration: 1 year full-time, 2 years part-time
Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Tuition Fees (Domestic Students): \$142 per credit point for day/evening classes (fees for short-courses and resource-based learning units available on application to School of Electrical and Electronic Systems Engineering) plus a \$1000 thesis supervision charge

Course Coordinator: Mr David Birtwhistle

Entry requirements

- (i) a Bachelor degree in Electrical Engineering and at least second class Honours with a study of power subjects to third year level, or
- (ii) students with the degree qualification, but who do not have second class Honours may transfer from the Graduate Diploma (Electricity Supply) after completing 48 credit points with a grade point average (GPA) of 5.0 or greater
- (iii) students seeking admission to Master of Engineering Science will only be enrolled if they have a firm offer of a supervised industry placement.

Full-time course structure

	Credit Points	Contact Hrs/Wk
Year 1, Semester 1		
12 Units (selected from List 1)	48	12
Year 1, Semester 2		
EEP230 Thesis A ⁵	12	3
EEP231 Thesis B ⁵	12	3
6 Units (selected from List 1)	24	6

Part-time course structure

Year 1, Semester 1		
6 Units (selected from List 1)	24	6
Year 1, Semester 2		
6 Units (selected from List 1)	24	6
Year 2, Semester 1		
EEP230 Thesis A ⁵	12	3
3 Units (selected from List 1)	12	3
Year 2, Semester 2		
EEP231 Thesis B ⁵	12	3
3 Units (selected from List 1)	12	3

List 1: Units

	Weeks	Credit Points	Contact Hrs/Wk
Semester 1			
EEP201 Fundamentals of Power System Earthing	1-5	4	3
EEP202 Thermal Ratings & Heat Transfer	1-5	4	3
EEP204 Power System Load Flow Analysis	1-5	4	3
EEP213 Statistics	1-5	4	3
EEP240 Organisation and Financial Management in the Electricity Supply Industry	1-5	4	3
EEP203 Testing & Condition Monitoring	6-10	4	3
EEP205 Power System Fault Calculations	6-10	4	3
EEP208 Economic Analysis for Power Systems Engineers	6-10	4	3
EEP210 Abnormal System Voltages	6-10	4	3
EEP247 Introduction to Plant Control in Industry & Power Generation	6-10	4	3

⁵ Students must complete 100 days of supervised professional practice. The thesis is related to this industry experience.

EEP206	Project Management	11-15	4	3
EEP209	Power System Harmonics	11-15	4	3
EEP218	Introduction to Automated System Control and Supervisory Systems (SCADA)	11-15	4	3
EEP219	High Voltage Substation Equipment, Power Transformers & Reactive Power Plant	11-15	4	3
EEP243	Contract Administration	11-15	4	3

Semester 2

EEP207	Overhead Line Route Selection – Environmental Factors	1-5	4	3
EEP211	Basic Power System Protection	1-5	4	3
EEP215	Reliability	1-5	4	3
EEP221	Limits to Power System Stability	1-5	4	3
EEP244	Circuit Breakers – Switchgear	1-5	4	3
EEP212	Advanced Power System Protection	6-10	4	3
EEP214	Risk Assessment in the Electricity Supply Industry	6-10	4	3
EEP216	Overhead Line Design – Electrical	6-10	4	3
EEP223	Load Forecasting	6-10	4	3
EEP245	Introduction to Substation Design	6-10	4	3
EEP217	Overhead Line Design – Mechanical	11-15	4	3
EEP220	Distribution Planning	11-15	4	3
EEP222	Maintenance of Electricity Supply Systems	11-15	4	3
EEP224	Power System Operation	11-15	4	3
EEP242	Efficient Marketing and Utilisation of Electricity: Demand and Supply Side Solutions	11-15	4	3

BUILT ENVIRONMENT & ENGINEERING

Units available as Resource-based Learning (i.e. Distance Education) with flexible enrolment.

		Credit Points	Hours of Study
EEP202	Thermal Ratings and Heat Transfer	4	45
EEP208	Economic Analysis for Power System Engineers	4	45
EEP209	Power System Harmonics	4	45
EEP210	Abnormal System Voltages	4	45
EEP211	Basic Power System Protection	4	45
EEP212	Advanced Power System Protection	4	45
EEP213	Statistics	4	45
EEP214	Risk Management in the Electricity Supply Industry	4	45
EEP215	Reliability	4	45
EEP217	Overhead Line Design – Mechanical	4	45
EEP220	Distribution Planning	4	45

Units in this course have been accepted by industry as approved training modules.

Credit points may be accumulated towards this award from day/evening classes (3 hours per week x 5 weeks), flexible enrolment in Resource-based Learning (i.e. Distance Education) units or from studies taken as short-courses (conducted in June/July and November/December). Further information on units available as Resource-based Learning or short-courses can be obtained by contacting the School of Electrical and Electronic Systems Engineering on (07) 3864 1632.

■ Master of Engineering Science (Engineering Management) (ME76)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Dr Elias Siores

A similar course (ME77) is also offered in Singapore in conjunction with Crossfields Asia Pacific Pty Ltd.

Entry Requirements

A Bachelors degree in Engineering (or its equivalent).

Part-time students are expected to be employed in some professional engineering capacity during the day and to carry out their QUT studies at night.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Semester 1			
HRN113	Management for Engineers	12	3
MEN280	Engineering Project Management	12	3
Select two units from the following:			
MEN190/1	Project ⁶	12	3
MEN140	Quality & Reliability Engineering	12	3
MEN171	Advanced Manufacturing Technologies	12	3
Semester 2			
FNN113	Managerial Accounting for Engineers	12	3
MEN170	Systems Modelling & Simulation	12	3
Select two units from the following:			
MEN190/2	Project ⁶	12	3
MEN240	Maintenance Management & Technology	12	3
MEN270	Manufacturing Resource Planning	12	3

Part-Time Course Structure

Year 1, Semester 1

HRN113	Management for Engineers	12	3
MEN280	Engineering Project Management	12	3

Year 1, Semester 2

FNN113	Managerial Accounting for Engineers	12	3
MEN170	Systems Modelling & Simulation	12	3

Year 2, Semester 1

Select two units from the following:

MEN140	Quality & Reliability Engineering	12	3
MEN171	Advanced Manufacturing Technologies	12	3
MEN190/1	Project ⁶	12	3

Year 2, Semester 2

Select two units from the following:

MEN240	Maintenance Management & Technology	12	3
MEN270	Manufacturing Resource Planning	12	3
MEN190/2	Project ⁶	12	3

■ Master of Engineering Science (Engineering Management) (ME77) – Singapore

Location: Singapore (Organised by Crossfields Asia Pacific Pty Ltd)

⁶ Students must take MEN190/1 and MEN190/2 unless they obtain the permission of the Head of School, Mechanical and Manufacturing Engineering, not to do so.

Aim

The aim of the course is to provide engineers with an introduction to management methods and systems of key relevance to the engineering profession. Particular emphasis is given to manufacturing management and technology; and to maintenance, quality and reliability.

Course Outline

The course consists of eight units, of which two are project units and six are coursework units. The coursework units are offered on a block basis. Each block occupies two weeks with lectures each evening Monday to Friday.

For further information about the course, please contact Professor Nick Hastings on (07) 3864 2409.

■ Master of Landscape Architecture (PS71)⁷

Location: Gardens Point campus

Course Duration: 2 years full-time (excluding any Masters Qualifying Units)

Total Credit Points: 228 (excluding any Masters Qualifying Units)

Standard Credit Points/Full-time Semester:

Semesters 1, 2 & 5: 48

Semesters 3 & 4: 54 minimum, 64 maximum

Course Coordinator: To be advised

Entry Requirements:

To be eligible for normal admission an applicant must:

- (i) hold a degree requiring at least three years' full-time (or its equivalent) study and completed with a Grade Point Average of at least 5.0 on a seven-point scale; or
- (ii) other documented qualifications and experience considered as equivalent by the Head of School; and, in addition but not necessarily before applying for admission, minimum knowledge and skills in design principles, freehand graphics, technical drawing and computer literacy as set out in the relevant Coursebook equivalent to a matriculation level in appropriate subject area or demonstrated equivalent approved by the Head of School.

Graduates of the Bachelor of Built Environment (Landscape Architecture) considered eligible for direct entry under the above criteria will be granted block credit for the first 96 credit points of the course on admission.

Professional Recognition

Professional accreditation for the course has been sought from the Australian Institute of Landscape Architects.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
PSP020	Landscape Studies 1	12	6
PSP021	Landscape Studies 2	12	7
PSP212	User & Character Design Studies	12	6
PSP251	Landscape Construction 1	12	4

⁷ Subject to University approval of award title.

Year 1, Semester 2

PSP022	Landscape Studies 3	12	4
PSP023	Landscape Studies 4	12	5
PSP213	Site Planning	12	4
PSP252	Landscape Construction 2	12	3

Year 2, Semester 1

PSP024	Advanced Landscape Studies 1	12	6
PSP025	Advanced Landscape Studies 2	12	4
PSP214	Residential Landscape Design	12	3
PSP215	Urban Landscape Design	12	3

Year 2, Semester 2

PSP026	Advanced Landscape Studies 3	12	7
PSN211	Research Project 1 ⁸	12	3
PSN213	Specialisation ⁸	12	3

Year 3, Semester 1 (or 2)

PSN212	Research Project 2 ⁸	12	3
PSN214	Electives ⁸	12	3

For students upgrading an existing Professional qualification the following Masters Qualifying Units are required (credit in all or part maybe granted at the discretion of the Head of School).

PSN207	Preparatory Specialisation 1 ⁸	12	3
PSN208	Preparatory Specialisation 2 ⁸	12	3
PSN209	Preparatory Electives 1 ⁸	12	3
PSN210	Preparatory Electives 2 ⁸	12	3

Part-Time Course Structure**Year 1 Semester 1**

PSP020	Landscape Studies 1	12	6
PSP251	Landscape Construction 1	12	4

Year 1 Semester 2

PSP022	Landscape Studies 3	12	4
PSP252	Landscape Construction 2	12	3

Year 2 Semester 1

PSP021	Landscape Studies 2	12	7
PSP212	User & Character Design Studies	12	6

Year 2 Semester 2

PSP023	Landscape Studies 4	12	5
PSP213	Site Planning	12	4

Year 3 Semester 1

PSP024	Advanced Landscape Studies 1	12	6
PSP214	Residential Landscape Design	12	3

Year 3 Semester 2

PSP026	Advanced Landscape Studies 3	12	7
PSP216	Landscape Planning	12	4

Year 4 Semester 1

PSP025	Advanced Landscape Studies 2	12	4
PSP215	Urban Landscape Design	12	3

Year 4 Semester 2

PSP027	Advanced Landscape Studies 4	12	3
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⁸ Contact time allocations for these units are nominal only.

Masters Level Units

Year 1 Semester 1

PSN211	Research Project 1	12	3
PSN213	Specialisation	12	3

Year 1 Semester 2

PSN212	Research Project 2 ⁹	12	3
PSN214	Electives ⁹	12	3

For students upgrading an existing Professional qualification the following Masters Qualifying Units are required (credit in all or part may be granted at the discretion of the Head of School).

PSN207	Preparatory Specialisation 1 ⁹	12	3
PSN208	Preparatory Specialisation 2 ⁹	12	3
PSN209	Preparatory Electives 1 ⁹	12	3
PSN210	Preparatory Electives 2 ⁹	12	3

■ Master of Project Management (CN77)

Similar courses are offered in Singapore (CN78) and Kuala Lumpur (CN79).

Location: Gardens Point campus

Course Duration: 1.5 years full-time, 3 years part-time

Total Credit Points: 144

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

The first two semesters full-time or four semesters part-time are identical to the Graduate Diploma in Project Management (CN64). Persons admitted to the Master of Project Management who are graduates of the Graduate Diploma in Project Management will be required to complete CNN441 (one semester full-time) or CNN442 (two semesters part-time).

Entry Requirements

Applicants for admission shall hold:

- (i) an approved Bachelor degree and demonstrated potential in professional activity to undertake a Masters degree course, or
- (ii) a Bachelor degree and a relevant graduate diploma or qualifying program with a grade point average of 5.0 or better, or
- (iii) qualifications deemed equivalent to (i) or (ii) by the Dean of Faculty on the recommendation of the Course Coordinator, and
- (iv) shall normally have at least three years of appropriate industry experience after graduation.

As the coursework components of the Graduate Diploma in Project Management and the Master of Project Management are identical, students may transfer from the Graduate Diploma to the Masters degree program providing that they have a grade point average of 5.0 or better and quota places are available. Students are normally required to apply for transfer at the completion of a minimum of one semester (48 credit points) of the Graduate Diploma.

At the completion of the coursework component of the Masters degree program but before the completion of the Dissertation, students have the option of electing to graduate with the Graduate Diploma in Project Management.

⁹ Contact time allocations for these units are nominal only.

The Graduate Diploma in Project Management has majors in Project Management and Property Development. These areas are also available as majors within the Masters degree program.

Note: Whilst the unit CNN441 (or CNN442) Dissertation incorporates the unit IFN001 Advanced Information Retrieval Skills, it is recommended that IFN001 be completed prior to the commencement of the Masters degree program or as early in the first semester as possible. The credit point value of IFN001 is incorporated in the credit point value of CNN441 (or CNN442).

All units shown are compulsory core units. Twelve credit point subjects are to be undertaken as two consecutive semesters of study. They cannot be undertaken as one-semester units. Students may undertake additional elective units or replace core units for which credit has been formally approved with other units available throughout the University. These units should be offered at a postgraduate level, or in some cases, at an advanced undergraduate level. Variations to the recommended study program require prior approval from the Course Coordinator.

School electives are offered subject to an appropriate enrolment in each semester.

PROJECT MANAGEMENT MAJOR

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CNP426/1	Project Development	6	2
CNP429	Cost Management & Economics	6	2
CNP430/1	Current Issues	6	2
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP434	Time Management	6	2
CNP437	Field Trip	6	4 days
	Two electives selected from List A	12	

Year 1, Semester 2

CNP406	International Project Management	6	2
CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP431/2	Project Management	6	2
CNP433/2	Project Management Law	6	2
	Two electives selected from List B	12	

Year 2, Semester 1

CNN441	Dissertation	48	4
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Part-Time Course Structure

Year 1, Semester 1

CNP429	Cost Management & Economics	6	2
CNP431/1	Project Management	6	2
CNP434	Time Management	6	2
CNP437	Field Trip	6	4 days
	An elective unit selected from List A	6	2

Year 1, Semester 2

CNP406	International Project Management	6	2
CNP431/2	Project Management	6	2
	An elective unit selected from List B	6	2

Year 2, Semester 1

CNP426/1	Project Development	6	2
CNP430/1	Current Issues	6	2
CNP433/1	Project Management Law	6	2
	An elective unit selected from List A	6	

Year 2, Semester 2

CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP433/2	Project Management Law	6	2
	An elective unit selected from List B	6	

Year 3, Semester 1

CNN442/1	Dissertation	24	2
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Year 3, Semester 2

CNN442/2	Dissertation	24	2
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List A: Semester 1 Elective Units

CNP400	Management of Technology	6	2
CNP402	Principles of Valuation	6	2
CNP403	Property Maintenance & Asset Management	6	2
CNP417	Design Management	6	2
CNP439	Property Management	6	2

List B: Semester 2 Elective Units

CNP404	Advanced Land Development	6	2
CNP422	Specialist Valuation	6	2
CNP667	Applied Computing	6	2

PROPERTY DEVELOPMENT MAJOR**Full-Time Course Structure****Year 1, Semester 1**

CNP402	Principles of Valuation	6	2
CNP426/1	Project Development	6	2
CNP430/1	Current Issues	6	2
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP437	Field Trip	6	4 days
CNP439	Property Management	6	2
	Two electives selected from List C	12	4

Year 1, Semester 2

CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP431/2	Project Management	6	2
CNP433/2	Project Management Law	6	2
CNP438	Real Estate Investment Analysis	6	2
	Two electives selected from List D	12	4

Year 2, Semester 1

CNN441	Dissertation	48	
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Part-Time Course Structure**Year 1, Semester 1**

CNP402	Principles of Valuation	6	2
CNP426/1	Project Development	6	2
CNP431/1	Project Management	6	2
CNP437	Field Trip	6	4 days
	An elective unit selected from List C	6	2

Year 1, Semester 2

CNP426/2	Project Development	6	2
CNP431/2	Project Management	6	2
CNP438	Real Estate Investment Analysis	6	2

Year 2, Semester 1

CNP430/1	Current Issues	6	2
CNP433/1	Project Management Law	6	2
CNP439	Property Management	6	2
	An elective unit selected from List C	6	2

Year 2, Semester 2

CNP430/2	Current Issues	6	2
CNP433/2	Project Management Law	6	2
	Two electives selected from List D	12	4

Year 3, Semester 1

CNN442/1	Dissertation	24	2
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Year 3, Semester 2

CNN442/2	Dissertation	24	2
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List C: Semester 1 Elective Units

CNP400	Management of Technology	6	2
CNP403	Property Maintenance & Asset Management	6	2
CNP417	Design Management	6	2
CNP429	Cost Management & Economics	6	2
CNP434	Time Management	6	2

List D: Semester 2 Elective Units

CNP404	Advanced Land Development	6	2
CNP406	International Project Management	6	2
CNP422	Specialist Valuation	6	2
CNP667	Applied Computing	6	2

■ Master of Project Management (CN78) – Singapore

Location: Summershire Management Consultants Pte Ltd, Singapore

Aim

The course aims to provide professionals with a high level of conceptual understanding of project management. Depending on the specialisation in project management or property development, study can be divided into areas of applied management, legal studies, economics, integrative studies and research.

Course Outline

The study has coursework and research components. The coursework consists of eight structured units covering project development, project management, current issues and investment analysis. Students then undertake individual research in an approved area of specialty. Identification of and solutions to practical problems are emphasised both in the study and research components.

For further information on the course, please contact Dr Jay Yang on (07) 3864 1028.

■ Master of Project Management (CN79) – Kuala Lumpur

Location: Amset (M) Sdn Bhd, Kuala Lumpur

Aim

The course aims to provide professionals with a high level of conceptual understanding of project management. Depending on the specialisation in project management or property development, study can be divided into areas of applied management, legal studies, economics, integrative studies and research.

Course Outline

The study has coursework and research components. The coursework consists of eight structured units covering project development, project management, current issues and investment analysis. Students then undertake individual research in an approved area of

specialty. Identification of and solutions to practical problems are emphasised both in the study and research components.

For further information on the course, please contact Dr Jay Yang on (07) 3864 1028.

■ Master of Urban and Regional Planning (PS70)¹⁰

Location: Gardens Point campus

Course Duration: Four semesters full-time or eight semesters part-time

Total Credit Points: 192

Standard credit points per full-time semester: 48

Course Coordinator: To be advised

Entry Requirements:

To be eligible for consideration for direct entry into the course an applicant must have either:

- (i) a recognised tertiary degree requiring at least three years' full-time study (or its equivalent), or
- (ii) other documented qualifications and experience considered to be equivalent by the Head of School. Applicants may be required to attend an interview, or sit an examination, where appropriate as part of the selection process.

A graduate of the modified Graduate Diploma in Urban and Regional Planning (offered from 1996) may apply to enrol in the Master of Urban and Regional Planning and if accepted will be given credit for Modules A, B and C.

Graduates who completed the Graduate Diploma in Urban and Regional Planning before 1996 will be allowed credit for the new Graduate Diploma in Urban and Regional Planning to enter the Masters program, depending on their grade point average, work experience and length of time which has elapsed since graduation. Such graduates may be required to complete units in the new Graduate Diploma in Urban and Regional Planning. Each case will be treated on its individual merits and will be decided by the Head of School in consultation with the graduate concerned and staff.

Full-Time Course Structure

The program is being offered with entry at the start of the year, and from 1997 also through a mid-year (second semester) entry. Students must complete four modules to complete the Masters Degree. Each module is worth 48 credit points, equivalent to one semester full-time or two semesters part-time. Modules may be offered in either first or second semester.

		Credit Points	Contact Hrs/Wk
Module A			
PSP501	Environmental Planning & Assessment	12	3
PSP502	Economic & Social Foundations of Planning	12	3
PSP503	Planning & Research Methods	12	3
PSP504	Urban Systems & Infrastructure	12	3
Module B			
PSP505	Planning in Society	12	3
PSP506	Planning Theory & Ethics	12	3

¹⁰ Subject to University approval of award title.

PSP507	Planning Procedures & Law	12	3
PSP508	Planning Practice I	12	3
PSP513	Field Trip ¹¹	0	1 week

Module C

PSP509	Regional & Metropolitan Policy	12	3
PSP510	Specialisation	12	3
PSN211	Research Project I & Advanced Research Methods	12	3
PSP512	Planning Practice II	12	3
PSP513	Field Trip ¹¹	0	1 week

Module D

PSN214	Elective	12	3
PSN221	Advanced Specialisation	12	3
PSN212	Research Project II	12	3
PSN223	Special Topics in Planning Methods	12	3

Part-time Course Structure

Module A1

PSP501	Environmental Planning & Assessment	12	3
PSP503	Planning & Research Methods	12	3

Module A2

PSP504	Urban Systems & Infrastructure	12	3
PSP502	Economic & Social Foundations of Planning	12	3

Module B1

PSP505	Planning in Society	12	3
PSP506	Planning Theory & Ethics	12	3

Module B2

PSP507	Planning Procedures & Law	12	3
PSP508	Planning Practice I	12	3
PSP513	Field Trip ¹¹	0	1 week

Module C1

PSP509	Regional & Metropolitan Policy	12	3
PSP512	Planning Practice I	12	3

Module C2

PSP510	Specialisation	12	3
PSP211	Research Project I & Advanced Research Methods	12	3
PSP513	Field Trip ¹¹	0	1 week

Module D1

PSN221	Advanced Specialisation	12	3
PSN214	Elective	12	3

Module D2

PSN212	Research Project II	12	3
PSN223	Special Topics in Planning Method	12	3

Notes

PSP510 Specialisation and PSN221 Advanced Specialisation offer specialisations in local and regional development, urban housing and community development, urban design and environmental and resource planning. Other special topics may be offered depending on staff availability.

PSN214 Elective allows students to choose an elective subject worth 12 credit points from elsewhere in QUT or at another tertiary institution, subject to approval of the Course Coordinator.

¹¹ Alternative module locations for a single week-long field trip.

■ Graduate Diploma in Computer Engineering (EE65)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Associate Professor Anthony Maeder

Entry Requirements

Applicants must hold a Bachelors degree in Engineering or Computer Science. Applicants possessing a degree in other areas of technology such as Mathematics, Physics or Chemistry may be required to undertake prerequisite undergraduate units.

Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
EEP101	Algorithms for Control Engineering	12	3
EEP102	Unix & C for Engineers	12	3
EEP124	Data Communications	12	3
EEP129	Image Processing & Computer Vision	12	3
Year 1, Semester 2			
EEP103	Computer Hardware & Interfacing	12	3
EEP104	Real-time Operating Systems	12	3
EEP120	Networks & Distributed Computing	12	3
EEP123	Process Control & Robotics	12	3
Part-Time Course Structure			
Year 1, Semester 1			
EEP101	Algorithms for Control Engineering	12	3
EEP102	Unix & C for Engineers	12	3
Year 1, Semester 2			
EEP103	Computer Hardware & Interfacing	12	3
EEP104	Real-time Operating Systems	12	3
Year 2, Semester 1			
EEP124	Data Communications	12	3
EEP129	Image Processing & Computer Vision	12	3
Year 2, Semester 2			
EEP120	Networks & Distributed Computing	12	3
EEP123	Process Control & Robotics	12	3

**BUILT
ENVIRONMENT
& ENGINEERING**

■ Graduate Diploma in Electricity Supply Engineering (EE60)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Tuition Fees (Domestic Students): \$142 per credit point for day/evening classes (fees for short-courses and resource-based learning units available on application to School of Electrical and Electronic Systems Engineering)

Course Coordinator: Mr David Birtwhistle

Entry requirements

A Bachelor degree in Electrical Engineering with a study of power subjects to third-year level.

Full-Time Course Structure

	Credit Points	Contact Hrs/Wk
Year 1, Semester 1		
12 Units (selected from List 1)	48	12
Year 1, Semester 2		
12 Units (selected from List 1)	48	12
Part-time course structure		
Year 1, Semester 1		
6 Units (selected from List 1)	24	6
Year 1, Semester 2		
6 Units (selected from List 1)	24	6
Year 2, Semester 1		
6 Units (selected from List 1)	24	6
Year 2, Semester 2		
6 Units (selected from List 1)	24	6

List 1: Units

	Weeks	Credit Points	Contact Hrs/Wk	
Semester 1				
EEP201	Fundamentals of Power System Earthing	1-5	4	3
EEP202	Thermal Ratings & Heat Transfer	1-5	4	3
EEP204	Power System Load Flow Analysis	1-5	4	3
EEP213	Statistics	1-5	4	3
EEP240	Organisation and Financial Management in the Electricity Supply Industry	1-5	4	3
EEP203	Testing & Condition Monitoring	6-10	4	3
EEP205	Power System Fault Calculations	6-10	4	3
EEP208	Economic Analysis for Power Systems Engineers	6-10	4	3
EEP210	Abnormal System Voltages	6-10	4	3
EEP247	Introduction to Plant Control in Industry and Power Generation	6-10	4	3
EEP206	Project Management	11-15	4	3
EEP209	Power System Harmonics	11-15	4	3
EEP218	Introduction to Automated System Control & Supervisory Systems	11-15	4	3
EEP219	High Voltage Substation Equipment, Power Transformers & Reactive Power Plant	11-15	4	3
EEP243	Contract Administration	11-15	4	3
Semester 2				
EEP207	Overhead Line Route Selection – Environmental Factors	1-5	4	3
EEP211	Basic Power System Protection	1-5	4	3
EEP215	Reliability	1-5	4	3
EEP221	Limits to Power System Stability	1-5	4	3
EEP244	Circuit Breakers – Switchgear	1-5	4	3
EEP212	Advanced Power System Protection	6-10	4	3
EEP214	Risk Assessment in the Electricity Supply Industry	6-10	4	3
EEP216	Overhead Line Design – Electrical	6-10	4	3
EEP223	Load Forecasting	6-10	4	3
EEP245	Introduction to Substation Design	6-10	4	3

EEP217	Overhead Line Design – Mechanical	11-15	4	3
EEP220	Distribution Planning	11-15	4	3
EEP222	Maintenance of Electricity Supply Systems	11-15	4	3
EEP224	Power System Operation	11-15	4	3
EEP242	Efficient Marketing and Utilisation of Electricity: Demand and Supply Side Solutions	11-15	4	3

Units available as Resource-based Learning (i.e. Distance Education) with flexible enrolment:

			Credit Points	Hours of Study
EEP202	Thermal Ratings and Heat Transfer		4	45
EEP208	Economic Analysis for Power System Engineers		4	45
EEP209	Power System Harmonics		4	45
EEP210	Abnormal System Voltages		4	45
EEP211	Basic Power System Protection		4	45
EEP212	Advanced Power System Protection		4	45
EEP213	Statistics		4	45
EEP214	Risk Management in the Electricity Supply Industry		4	45
EEP215	Reliability		4	45
EEP217	Overhead Line Design – Mechanical		4	45
EEP220	Distribution Planning		4	45

Units in this course have been accepted by industry as approved training modules.

Credit points may be accumulated towards this award from day/evening classes (3 hours per week x 5 weeks), flexible enrolment in Resource-based Learning (i.e. Distance Education) units or from studies taken as short-courses (conducted in June/July and November/December). Further information on units available as Resource-based Learning or short-courses can be obtained by contacting the School of Electrical and Electronic Systems Engineering on (07) 3864 1632.

■ Graduate Diploma in Industrial Design (AR61)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Associate Professor Vesna Popovic

Entry Requirements

To be eligible for admission, an applicant must:

- (i) hold an approved degree or diploma from a recognised tertiary institution; or
- (ii) have attained professional recognition by an equivalent course of study or examination.

Professional Recognition

The Graduate Diploma in Industrial Design has been accredited by the Design Institute of Australia (DIA). Graduates are eligible for Associate membership on graduation.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Semester 1			
ARP613	Advanced Ergonomics 1	6	2
ARP670	Elective A	6	2
ARP672	Industrial Design 1	12	6

ARP674	Industrial Design Research 1	18	8
ARP676	Advanced Computer-aided Industrial Design 1	6	2
Semester 2			
ARP623	Advanced Ergonomics 2	6	2
ARP654	Professional Practice and Management	6	2
ARP673	Industrial Design 2	12	6
ARP675	Industrial Design Research 2	18	8
ARP677	Advanced Computer-aided Industrial Design 2	6	2

Part-Time Course Structure

Year 1, Semester 1

ARP613	Advanced Ergonomics 1	6	2
ARP672	Industrial Design 1	12	6
ARP676	Advanced Computer-aided Industrial Design 1	6	2

Year 1, Semester 2

ARP623	Advanced Ergonomics 2	6	2
ARP673	Industrial Design 2	12	6
ARP677	Advanced Computer-aided Industrial Design 2	6	2

Year 2, Semester 1

ARP670	Elective A	6	2
ARP674	Industrial Design Research 1	18	8

Year 2, Semester 2

ARP654	Professional Practice and Management	6	2
ARP675	Industrial Design Research 2	18	8

Elective Units

All electives undertaken must have the prior approval of the Course Coordinator.

■ Graduate Diploma in Interior Design (AR62)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Entry Requirements

To be eligible for admission, an applicant must:

- (i) hold an approved degree or diploma from a recognised tertiary institution, or
- (ii) have attained professional recognition by an equivalent course of study or examination.

Professional Recognition

The Graduate Diploma in Interior Design has been accredited by the Design Institute of Australia.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Semester 1			
ARP502	Advanced Interior Design 1	18	6
ARP508	Professional Studies 1	18	6
ARP606	Elective 1	6	2
ARP608	Theory & Criticism	6	2

Semester 2

ARP503	Advanced Interior Design 2	18	6
ARP604	Conservation of Historic Interiors	18	6
ARP605	Professional Studies 2	6	2
ARP607	Elective 2	6	2

Part-Time Course Structure

Year 1, Semester 1

ARP502	Advanced Interior Design 1	18	6
ARP606	Elective 1	6	2

Year 1, Semester 2

ARP503	Advanced Interior Design 2	18	6
ARP607	Elective 2	6	2

Year 2, Semester 1

ARP508	Professional Studies 1	18	6
ARP608	Theory & Criticism	6	2

Year 2, Semester 2

ARP604	Conservation of Historic Interiors	18	6
ARP605	Professional Studies 2	6	2

Elective Units

All electives undertaken must have prior approval of the Course Coordinator.



■ Graduate Diploma in Landscape Architecture (PS66)

Location: Gardens Point campus

Course Duration: 2 years full-time, 4 years part-time

Total Credit Points: 192

Standard Credit Points/Full-time semester: 48

Course Coordinator: To be advised

Entry Requirements

To be eligible for normal admission, an applicant must:

- hold a degree or diploma from a recognised tertiary institution, or
- have attained professional recognition by a course of study or examination.

Special entry provisions also apply. Prior to beginning studies in the course (but not necessarily prior to application for admission) applicants are required to have appropriate skills and knowledge in basic design/perception, free-hand graphics, and technical drawing.

Graduates of the Bachelor of Built Environment (Landscape Architecture) are credited with Year 1 (full-time) or Years 1 and 2 (part-time). Students from other backgrounds may be granted credit as appropriate to their education and experience.

Professional Recognition

The Graduate Diploma in Landscape Architecture is accredited by the Australian Institute of Landscape Architects.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
PSP020	Landscape Studies 1	12	6
PSP021	Landscape Studies 2	12	7

PSP212	User & Character Design Studies	12	6
PSP251	Landscape Construction 1	12	4
Year 1, Semester 2			
PSP022	Landscape Studies 3	12	4
PSP023	Landscape Studies 4	12	5
PSP213	Site Planning	12	4
PSP252	Landscape Construction 2	12	3
Year 2, Semester 1			
PSP024	Advanced Landscape Studies 1	12	6
PSP025	Advanced Landscape Studies 2	12	4
PSP214	Residential Landscape Design	12	3
PSP215	Urban Landscape Design	12	3
Year 2, Semester 2			
PSP026	Advanced Landscape Studies 3	12	7
PSP027	Advanced Landscape Studies 4	12	3
PSP216	Landscape Planning	12	4
PSP219	Advanced Landscape Design	12	4
Part-Time Course Structure			
Year 1 Semester 1			
PSP020	Landscape Studies 1	12	6
PSP251	Landscape Construction 1	12	4
Year 1 Semester 2			
PSP022	Landscape Studies 3	12	4
PSP252	Landscape Construction 2	12	3
Year 2 Semester 1			
PSP021	Landscape Studies 2	12	7
PSP212	User & Character Design Studies	12	6
Year 2 Semester 2			
PSP023	Landscape Studies 4	12	5
PSP213	Site Planning	12	4
Year 3 Semester 1			
PSP024	Advanced Landscape Studies 1	12	6
PSP214	Residential Landscape Design	12	3
Year 3 Semester 2			
PSP026	Advanced Landscape Studies 3	12	7
PSP216	Landscape Planning	12	4
Year 4 Semester 1			
PSP025	Advanced Landscape Studies 2	12	4
PSP215	Urban Landscape Design	12	3
Year 4 Semester 2			
PSP027	Advanced Landscape Studies 4	12	3
PSP219	Advanced Landscape Design	12	4

■ Graduate Diploma in Municipal Engineering (CE63)

Location: Gardens Point campus

Course Duration: 2 years part-time

Total Credit Points: 96

Standard Credit Points/Part-Time Semester: 24

Course Coordinator: Dr Luis Ferreira

Entry Requirements

To be eligible for admission an applicant must hold an acceptable degree or diploma in engineering from a recognised institution.

Applicants who do not meet the requirements for normal entry but who hold a degree or diploma in a scientific or technological field or other equivalent qualifications or hold professional engineering recognition may be required to complete such prerequisite engineering units as may be determined by the Head of the School of Civil Engineering prior to enrolment in the course.

Course Structure

The course has four majors. It consists of 40 credit points (10 semester hours) of core material common to all majors and a minimum of 56 credit points (14 semester hours) of material prescribed for majors. The majority of the units are common with the Master of Engineering Science (Civil) (CE74).

Students may transfer from the Graduate Diploma in Municipal Engineering to the Master of Engineering Science (Civil). For further details on the transfer arrangement refer to the Master of Engineering (Civil) entry in this Handbook.

Students who do not wish to undertake a major must complete the core units plus any combination of units from the majors totalling at least 56 credit points. Programs should be devised in consultation with the Course Coordinator.

Graduates who have completed the prescribed units for a major will have their award certificates and academic transcripts endorsed 'Majoring in...'.¹²

Course Structure – All Majors

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CEP128	Municipal Engineering Planning (offered even years) ¹²	12	3
CEP131	Engineering Management & Administration	12	3
Year 1, Semester 2			
CEP200	Process Modelling	8	2
CEP361	Drainage Engineering (offered odd years) ¹²	8	2
	Unit chosen from major	8	
Year 2, Semester 1			
	Units chosen from major	24	
Year 2, Semester 2			
	Units chosen from major	24	
	Year and Semester of Offer	Credit Points	Contact Hrs/Wk
ENVIRONMENTAL ENGINEERING MAJOR (EVN)			
CEP172	Water Quality Engineering	even, 1	8
CEP174	Public Health Engineering Practice	odd, 1	12
CEP276	Advanced Treatment Processes	odd, 2	8
CEP277	Waste Management	even, 2	12
CEP290	Environmental Law & Assessment ¹³	odd, 2	8
CHP691	Environmental Chemistry	even, 2	8

¹² In years that these units are not available, students take units from their chosen major and complete these units in the following year.

¹³ CEP290 Environmental Law and Assessment may be offered in even years, semester 2, in conjunction with a Bachelor of Engineering elective unit.

LOCAL GOVERNMENT ENGINEERING MAJOR (LGN)

CEP107	Construction Management & Economics	odd, 1	8	2
CEP109	Municipal Law & Regulations	even, 2	8	2
CEP127	Road & Traffic Engineering	odd, 1	12	3
CEP174	Public Health Engineering Practice	odd, 1	12	3

Plus units totalling at least 16 credit points from any other major.¹⁴

PUBLIC HEALTH ENGINEERING MAJOR (PHN)

CEP172	Water Quality Engineering	even, 1	8	2
CEP174	Public Health Engineering Practice	odd, 1	12	3
CEP276	Advanced Treatment Processes	odd, 2	8	2
CEP277	Waste Management	even, 2	12	3

Plus units totalling at least 16 credit points from any other major.¹⁴

TRANSPORTATION ENGINEERING MAJOR (TRN)

CEP127	Road & Traffic Engineering	odd, 1	12	3
CEP215	Advanced Traffic Engineering	odd, 2	8	2
CEP218	Transportation Engineering	even, 1	12	3
CEP310	Urban Transportation Planning	even, 2	8	2

Plus units totalling at least 16 credit points from any other major.¹⁴

■ Graduate Diploma in Project Management (CN64)

Similar courses are offered in Singapore (CN65) and Kuala Lumpur (CN66).

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Entry Requirements

To be eligible for admission an applicant must:

- (i) hold an approved degree or diploma from a recognised tertiary institution, or
- (ii) have attained professional recognition by an equivalent course of study or examination, and
- (iii) have a minimum of three years' relevant experience after graduation.
- (iv) Special entry at the discretion of the Course Coordinator may be granted where an equivalent course of study or examination cannot be readily established. This may involve a qualifying examination.

The Graduate Diploma in Project Management has majors in Project Management and Property Development. These areas are also available as majors within the Masters degree program.

Note: It is strongly recommended that all graduate diploma students complete the unit IFN001 Advanced Information Retrieval Skills before commencing the course or early in Semester 1. The credit points of this unit will not be included in the total credit points which must be completed for the award of the Graduate Diploma.

¹⁴ Includes CEP491 Municipal Engineering Practice (16 credit points and 4 contact hours) which is available in any semester.

All units shown are compulsory core units. Twelve credit point units are to be undertaken as two consecutive semesters of study. They cannot be undertaken as one semester units. Students may undertake additional elective units or replace core units for which credit has been formally approved with other units available throughout the University. These units should be offered at a postgraduate level, or in some cases, at an advanced undergraduate level. Variations to the recommended study program require prior approval from the Course Coordinator.

School electives are offered subject to an appropriate enrolment in each semester.

PROJECT MANAGEMENT MAJOR

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Semester 1			
CNP426/1	Project Development	6	2
CNP429	Cost Management & Economics	6	2
CNP430/1	Current Issues	6	2
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP434	Time Management	6	2
CNP437	Field Trip	6	4 days
	Two electives selected from List A	12	

Semester 2

CNP406	International Project Management	6	2
CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP431/2	Project Management	6	2
CNP433/2	Project Management Law	6	2
	Two electives selected from List B	12	

Part-Time Course Structure

Year 1, Semester 1

CNP429	Cost Management & Economics	6	2
CNP431/1	Project Management	6	2
CNP434	Time Management	6	2
CNP437	Field Trip	6	4 days
	An elective unit selected from List A	6	

Year 1, Semester 2

CNP406	International Project Management	6	2
CNP431/2	Project Management	6	2
	An elective unit selected from List B	6	2

Year 2, Semester 1

CNP426/1	Project Development	6	2
CNP430/1	Current Issues	6	2
CNP433/1	Project Management Law	6	2
	An elective unit selected from List A	6	2

Year 2, Semester 2

CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP433/2	Project Management Law	6	2
	An elective unit selected from List B	6	2

List A: Semester 1 Elective Units

CNP400	Management of Technology	6	2
CNP402	Principles of Valuation	6	2
CNP403	Property Maintenance & Asset Management	6	2
CNP417	Design Management	6	2
CNP439	Property Management	6	2



List B: Semester 2 Elective Units

CNP404	Advanced Land Development	6	2
CNP422	Specialist Valuation	6	2
CNP667	Applied Computing	6	2

PROPERTY DEVELOPMENT MAJOR**Full-Time Course Structure****Year 1, Semester 1**

CNP402	Principles of Valuation	6	2
CNP426/1	Project Development	6	2
CNP430/1	Current Issues	6	2
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP437	Field Trip	6	4 days
CNP439	Property Management	6	2
	Two electives selected from List C	12	4

Year 1, Semester 2

CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP431/2	Project Management	6	2
CNP433/2	Project Management Law	6	2
CNP438	Real Estate Investment Analysis	6	2
	Two electives selected from List D	12	4

Part-Time Course Structure**Year 1, Semester 1**

CNP402	Principles of Valuation	6	2
CNP426/1	Project Development	6	2
CNP431/1	Project Management	6	2
CNP437	Field Trip	6	4 days
	An elective unit selected from List C	6	2

Year 1, Semester 2

CNP426/2	Project Development	6	2
CNP431/2	Project Management	6	2
CNP438	Real Estate Investment Analysis	6	2

Year 2, Semester 1

CNP430/1	Current Issues	6	2
CNP433/1	Project Management Law	6	2
CNP439	Property Management	6	2
	An elective unit selected from List C	6	2

Year 2, Semester 2

CNP430/2	Current Issues	6	2
CNP433/2	Project Management Law	6	2
	Two electives selected from List D	12	4

List C: Semester 1 Elective Units

CNP400	Management of Technology	6	2
CNP403	Property Maintenance & Asset Management	6	2
CNP417	Design Management	6	2
CNP429	Cost Management & Economics	6	2
CNP434	Time Management	6	2

List D: Semester 2 Elective Units

CNP404	Advanced Land Development	6	2
CNP406	International Project Management	6	2
CNP422	Specialist Valuation	6	2
CNP667	Applied Computing	6	2

■ Graduate Diploma in Project Management (CN65) – Singapore

Location: Summershire Management Consultants Pte Ltd, Singapore

Aim

The course aims to provide professionals with a sound appreciation of the overall management processes involved in project and property development industries. Particular emphasis is given to the service role of project management in order to optimise the use of resources and to plan, control, deliver and coordinate all aspects of a project or a product which will meet clients' requirement of function, cost, time and quality.

Course Outline

There are two specialist majors – Project Management and Property Development.

Coursework is divided into eight units under the following headings:

- Management – project, time and cost management
- Design – management of the design process
- Law – project management law
- Economics – real estate investment and economics, specialist valuations, feasibility
- Integrative studies – current issues, computer applications.

Identification of and solutions to practical problems are emphasised both in teaching and learning of these units. Students completing this course will have the opportunity to undertake research and obtain a Masters degree in project management.

For further information on the course, please contact Dr Jay Yang on (07) 3864 1028.

■ Graduate Diploma in Project Management (CN66) – Kuala Lumpur

Location: Amset (M) Sdn Bhd, Kuala Lumpur

Aim

The course aims to provide professionals with a sound appreciation of the overall management processes involved in project and property development industries. Particular emphasis is given to the service role of project management in order to optimise the use of resources and to plan, control, deliver and coordinate all aspects of a project or a product which will meet clients' requirement of function, cost, time and quality.

Course Outline

There are two specialist majors – Project Management and Property Development.

Coursework is divided into eight units under the following headings:

- Management – project, time and cost management
- Design – management of the design process
- Law – project management law
- Economics – real estate investment and economics, specialist valuations, feasibility
- Integrative studies – current issues, computer applications.

Identification of and solutions to practical problems are emphasised both in teaching and learning of these units. Students completing this course will have the opportunity to undertake research and obtain a Masters degree in project management.

For further information on the course, please contact Dr Jay Yang on (07) 3864 1028.

■ Graduate Diploma in Surveying Practice (PS68)

Location: Gardens Point campus

Course Duration: 1 year full-time (34 weeks)

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Professional Recognition

Successful completion of the course leads to the licensing by the Surveyors Board of Queensland.

Entry Requirements

To be eligible for admission an applicant must hold the following:

- (i) a Bachelor of Applied Science (Surveying) degree from the Queensland University of Technology, or
- (ii) a Bachelor of Surveying degree from the University of Queensland, or
- (iii) from another tertiary institution a degree acceptable to the Surveyors Board of Queensland and considered by the Head of the School of Planning, Landscape Architecture and Surveying to be at least equivalent to QUT's Bachelor of Applied Science (Surveying) degree.

Applicants who do not meet the requirements for normal entry but who hold a tertiary qualification in a technological field or other equivalent qualification may be required to complete such prerequisite surveying and other units as may be determined by the Head of School prior to enrolment in the course.

Applicants for admission must have at least one year of practical experience in the practice of surveying following graduation, or its equivalent.

Course Structure

Course Structure		Credit Points	Contact Hrs/Wk
Semester 1			
PSP311	Professional Practice Management	12	9
PSP312	Survey Computing & Processing	8	6
PSP313	Survey Project Management	8	6
PSP314	Boundary Definition Surveys 1	12	9
PSP315	Property Development Surveys	8	6
Semester 2			
PSP321	Spatial Information Systems	8	6
PSP322	Engineering Surveying	12	9
PSP323	Project Site Surveys	8	6
PSP324	Boundary Definition Surveys 2	12	9
PSP325	Property Management Surveys	8	6

■ Graduate Diploma in Urban and Regional Planning (PS72)

Location: Gardens Point campus

Course Duration: 3 semesters full-time or 6 semesters part-time

Total Credit Points: 144

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Dr John Minnery

Entry Requirements:

To be eligible for admission an applicant must:

- hold a degree or diploma from a recognised tertiary institution, or
- have attained professional recognition by an equivalent course of study or examination.

Note: Graduates from QUT's Bachelor of Built Environment (Urban and Regional Planning) shall be credited with the first semester of full-time study or first two semesters of part-time study (Module A). Students from other backgrounds will be granted credit as appropriate to their education and experience.

Students who have completed units in the Graduate Diploma in Urban and Regional Planning before 1996 will be allowed credit for units in the new Graduate Diploma in Urban and Regional Planning, depending on their grade point average, the length of time which has elapsed since completion, and recent experience. Each case will be treated on its individual merits and will be decided by the Head of School in consultation with the student concerned and staff.

Full-Time Course Structure

Credit Points **Contact Hrs/Wk**

The program is being offered with entry at the start of the year, and from 1997 also through a mid-year (second semester) entry. Students must complete three modules to complete the Graduate Diploma. Each module is worth 48 credit points, equivalent to one semester full-time or two semesters part-time. Modules may be offered in either first or second semester.

Module A

PSP501	Environmental Planning & Assessment	12	3
PSP502	Economic & Social Foundations of Planning	12	3
PSP503	Planning & Research Methods	12	3
PSP504	Urban Systems & Infrastructure	12	3

Module B

PSP505	Planning in Society	12	3
PSP506	Planning Theory & Ethics	12	3
PSP507	Planning Procedures & Law	12	3
PSP508	Planning Practice I	12	3
PSP513	Field Trip ¹⁵	0	1 week

Module C

PSP509	Regional & Metropolitan Policy	12	3
PSP510	Specialisation	12	3
PSN211	Research Project I & Advanced Research Methods	12	3
PSP512	Planning Practice II	12	3
PSP513	Field Trip ¹⁵	0	1 week

¹⁵ Alternative module locations for a single week-long field trip.

Part-Time Course Structure

Module A1

PSP501	Environmental Planning & Assessment	12	3
PSP503	Planning & Research Methods	12	3

Module A2

PSP504	Urban Systems & Infrastructure	12	3
PSP502	Economic & Social Foundations of Planning	12	3

Module B1

PSP505	Planning in Society	12	3
PSP506	Planning Theory & Ethics	12	3

Module B2

PSP507	Planning Procedures & Law	12	3
PSP508	Planning Practice I	12	3
PSP513	Field Trip ¹⁶	0	1 week

Module C1

PSP509	Regional & Metropolitan Policy	12	3
PSP512	Planning Practice I	12	3

Module C2

PSP510	Specialisation	12	3
PSP211	Research Project I & Advanced Research Methods	12	3
PSP513	Field Trip ¹⁶	0	1 week

Note: PSP510 Specialisation offers specialisations in local and regional development, urban housing and community development, urban design and environmental and resource planning. Other special topics may be offered depending on staff availability.

■ Graduate Diploma in Urban Design (PS69)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Entry Requirements

To be eligible for admission an applicant must hold a Bachelor degree with a grade point average of 5.0 or better and demonstrated potential in a relevant professional activity, or a relevant graduate diploma with a grade point average of 5.0 or better, or a qualifying program with a grade point average of 5.0 or better.

Applicants are considered initially for acceptance in the Graduate Diploma in Urban Design. At the completion of one semester for full-time students and two semesters for those studying part-time, students will be considered for enrolment in the Master of Built Environment (Urban Design). A grade point average of 5.0 or better in the course is normally required for progression to the Masters level.

Course Requirements

Students must complete a minimum of 48 credit points per semester in the full-time course and a minimum of 24 credit points per semester in the part-time course.

¹⁶ Alternative module locations for a single week-long field trip.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Semester 1			
IFN001	Advanced Information Retrieval Skills	4	1
PSN004	Applied Research Techniques	4	1
PSP401	Urban Design Analysis Studio	12	3
PSP403	Urban Design Conjecture Studio	12	3
PSP421	History of Urban Systems	4	1
PSP424	Urban Design Theory & Criticism	4	1
Plus any of the following totalling at least 8 credit points:			
CNP439	Property Management	6	2
PSP411	Environmental Psychology	4	2
PSP416	Computer-aided Data Analysis	2	1
PSP442	Law & Legislation in Urban Design	4	1
Semester 2			
PSP402	Urban Design Context Studio	12	3
PSP405	Urban Design Field Studies	4	10 days
Plus any of the following totalling at least 32 credit points:			
PSN002	Concentration Studies A	4	1
PSN003	Concentration Studies B	8	2
PSP011	Conservation Theory	3	1
PSP432	Urban Landscape	4	1
PSP434	Urban Services & Functions	4	1
PSP441	Computer Applications in Urban Design	4	1
	Elective Unit/s		

BUILT
ENVIRONMENT
& ENGINEERING

Part-Time Course Structure

Year 1, Semester 1

IFN001	Advanced Information Retrieval Skills	4	1
PSP401	Urban Design Analysis Studio	12	3
PSP421	History of Urban Systems	4	1
PSP424	Urban Design Theory & Criticism	4	1

Year 1, Semester 2

PSP402	Urban Design Context Studio	12	3
PSP405	Urban Design Field Studies	4	10 days
Plus any of the following totalling at least 8 credit points:			
PSP011	Conservation Theory	3	1
PSP416	Computer Aided Data Analysis	2	1
PSP432	Urban Landscape	4	1
PSP434	Urban Services & Functions	4	1
PSP441	Computer Applications in Urban Design	4	1

Year 2, Semester 1

PSP403	Urban Design Conjecture Studio	12	3
PSN004	Applied Research Techniques	4	1
Plus any of the following totalling a minimum of 8 credit points:			
CNP439	Property Management	6	2
PSP411	Environmental Psychology	4	2
PSP416	Computer-aided Data Analysis	2	1
PSP442	Law & Legislation in Urban Design	4	1

Year 2, Semester 2

Any of the following totalling at least 24 credit points:

PSN002	Concentration Studies A	4	1
PSN003	Concentration Studies B	8	2
PSP432	Urban Landscape	4	1
PSP434	Urban Services & Functions	4	1
PSP441	Computer Applications in Urban Design	4	1
	Elective Unit/s		

■ Graduate Certificate in Electricity Supply Engineering (EE82)

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time

Total Credit Points: 48

Standard Credit Points/Full-Time Semester: 48

Tuition Fees (Domestic Students): \$142 per credit point for day/evening classes (fees for short-courses and resource-based learning units available on application to School of Electrical and Electronic Systems Engineering)

Course Coordinator: Mr David Birtwhistle

Entry requirements

A Bachelor degree in Electrical Engineering with a study of power subjects to third year level.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Semester 1			
	12 Units (selected from List 1)	48	12
Part-Time course structure			
Year 1, Semester 1			
	6 Units (selected from List 1)	24	6
Year 1, Semester 2			
	6 Units (selected from List 1)	24	6

List 1: Units		Weeks	Credit Points	Contact Hrs/Wk
Semester 1				
EEP201	Fundamentals of Power System Earthing	1-5	4	3
EEP202	Thermal Ratings & Heat Transfer	1-5	4	3
EEP204	Power System Load Flow Analysis	1-5	4	3
EEP213	Statistics	1-5	4	3
EEP240	Organisation and Financial Management in the Electricity Supply Industry	1-5	4	3
EEP203	Testing & Condition Monitoring	6-10	4	3
EEP205	Power System Fault Calculations	6-10	4	3
EEP208	Economic Analysis for Power Systems Engineers	6-10	4	3
EEP210	Abnormal System Voltages	6-10	4	3
EEP247	Introduction to Plant Control in Industry and Power Generation	6-10	4	3
EEP206	Project Management	11-15	4	3
EEP209	Power System Harmonics	11-15	4	3
EEP218	Introduction to Automated System Control & Supervisory Systems (SCADA)	11-15	4	3
EEP219	High Voltage Substation Equipment, Power Transformers & Reactive Power Plant	11-15	4	3
EEP243	Contract Administration	11-15	4	3
Semester 2				
EEP207	Overhead Line Route Selection – Environmental Factors	1-5	4	3
EEP211	Basic Power System Protection	1-5	4	3

EEP215	Reliability	1-5	4	3
EEP221	Limits to Power System Stability	1-5	4	3
EEP244	Circuit Breakers – Switchgear	1-5	4	3
EEP212	Advanced Power System Protection	6-10	4	3
EEP214	Risk Assessment in the Electricity Supply Industry			
EEP216	Overhead Line Design – Electrical	6-10	4	3
EEP223	Load Forecasting	6-10	4	3
EEP245	Introduction to Substation Design	6-10	4	3
EEP217	Overhead Line Design – Mechanical	11-15	4	3
EEP220	Distribution Planning	11-15	4	3
EEP222	Maintenance of Electricity Supply Systems	11-15	4	3
EEP224	Power System Operation	11-15	4	3
EEP242	Efficient Marketing and Utilisation of Electricity: Demand and Supply Side Solutions	11-15	4	3

Units available as Resource-based Learning (i.e. Distance Education) with flexible enrolment:

		Credit Points	Hours of Study
EEP202	Thermal Ratings & Heat Transfer	4	45
EEP208	Economic Analysis for Power System Engineers	4	45
EEP209	Power System Harmonics	4	45
EEP210	Abnormal System Voltages	4	45
EEP211	Basic Power System Protection	4	45
EEP212	Advanced Power System Protection	4	45
EEP213	Statistics	4	45
EEP214	Risk Management in the Electricity Supply Industry	4	45
EEP215	Reliability	4	45
EEP217	Overhead Line Design – Mechanical	4	45
EEP220	Distribution Planning	4	45

Units in this course have been accepted by industry as approved training modules.

Credit points may be accumulated towards this award from day/evening classes (3 hours per week x 5 weeks), flexible enrolment in Resource-based Learning (i.e. Distance Education) units or from studies taken as short-courses (conducted in June/July and November/December). Further information on units available as Resource-based Learning or short-courses can be obtained by contacting the School of Electrical and Electronic Systems Engineering on (07) 3864 1632.

■ Graduate Certificate in Engineering Management (ME75)

Location: Gardens Point campus

Course Duration: 1 semester full-time, 1 year part-time

Total Credit Points: 48

Standard Credit Points/Full-Time Semester: 48

Tuition Fees (Domestic Students): \$50 per credit point

Course Coordinator: Dr Elias Siores

Entry Requirements

- (i) a Bachelors degree in Engineering (or its equivalent), or
- (ii) relevant training or experience considered by the Course Coordinator as appropriate for entry to the course.

Note: Course offered subject to final University approval.

Course Requirements

Students will take four of the following units. All units are offered in the Master of Engineering Science (Engineering Management) (ME76) or the Graduate Diploma in Quality (IF69). The course may be taken full-time, part-time, part-time (block release) or by a combination of these modes.

Full-Time/Part-Time Course Structure

		Credit Points	Contact Hrs/Wk
Select four units from the following:			
MEN140	Quality & Reliability Engineering	12	3
MEN170	Systems Modelling & Simulation	12	3
MEN171	Advanced Manufacturing Technologies	12	3
MEN240	Maintenance Management & Technology	12	3
MEN270	Manufacturing Resource Planning	12	3
MEN280	Engineering Project Management	12	3
MEP274	Quality Systems Implementation and Maintenance	12	3

■ Graduate Certificate in Project Development (CN81)

With specialisations in: Construction Management, Project Management, Property Development, and Property Economics.

Similar courses are offered in Singapore (CN82) and Kuala Lumpur (CN83).

Location: Gardens Point campus

Course Duration: 1 year part-time

Total Credit Points: 48

Standard Credit Points/Part-Time Semester: 24

Tuition Fees (Domestic Students): \$80 per credit point

Course Coordinator: To be advised

Entry requirements

NORMAL ENTRY

An applicant must:

- (i) hold an approved degree or diploma from a recognised university, college of advanced education or approved tertiary institution, or
- (ii) hold degree-equivalent professional qualifications, and
- (iii) normally have at least three years' relevant experience after graduation.

SPECIAL ENTRY

An applicant must:

- (i) have extensive, relevant, professional experience as determined by the Course Coordinator
- (ii) for the specialisations in Project Management and Property Development, have a minimum of three years' relevant experience after graduation.

Course Structure

No exemptions are permitted. If a unit has been studied previously then an alternative should be selected.

If students have opted for the majors in Project Management or Property Development, after the successful completion of the graduate certificate, they may, on achieving a grade point average of 5.0 or better and gaining admission to the Graduate Diploma in Project Management, complete a further 48 credit points in the same discipline with the guidance

and approval of the Course Coordinator and be granted the Graduate Diploma in that discipline.

It should be noted that some units are available in concentrated format over a period of one, two or three days rather than in the standard format of two hours per week for one or two semesters. These will be run only if there is sufficient demand and will be self-funding from fees charged.

It is strongly recommended that all graduate certificate students complete the unit IFN001 Advanced Information Retrieval Skills prior to commencing the course or early in Semester 1. The credit point value of this unit is not included in the total credit points which must be completed to be awarded a graduate certificate.

School electives are offered subject to an appropriate enrolment in each semester.

CONSTRUCTION MANAGEMENT MAJOR

Students must complete a total of 48 credit points from the following units:

Semester 1

CNB601	Formwork Design & Construction	4	2
CNP426/1	Project Development	6	2
CNP429	Cost Management & Economics	6	2
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP434	Time Management	6	2

Semester 2

CNP406	International Project Management	6	2
CNP426/2	Project Development	6	2
CNP431/2	Project Management	6	2
CNP433/2	Project Management Law	6	2
CNP667	Applied Computing	6	2

Electives available in the Graduate Diploma in Project Management (CN64) or in advanced units in CN41 may also be undertaken with the prior approval of the Course Coordinator.

PROJECT MANAGEMENT MAJOR

Students must complete a total of 48 credit points from the following units:

Semester 1

CNP426/1	Project Development	6	2
CNP429	Cost Management & Economics	6	2
CNP430/1	Current Issues	6	3
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP434	Time Management	6	2
CNP437	Field Trip	6	4 days

Semester 2

CNP406	International Project Management	6	2
CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP431/2	Project Management	6	2
CNP433/2	Project Management Law	6	2

Electives available in the Graduate Diploma in Project Management (CN64) – Project Management major – may also be undertaken with the prior approval of the Course Coordinator.

PROPERTY DEVELOPMENT MAJOR

Students must complete a total of 48 credit points from the following units:

Semester 1

CNP402	Principles of Valuation	6	2
CNP426/1	Project Development	6	2

CNP430/1	Current Issues	6	2
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP434	Time Management	6	2
CNP437	Field Trip	6	4 days
CNP439	Property Management	6	2

Semester 2

CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP431/2	Project Management	6	2
CNP433/2	Project Management Law	6	2
CNP432	Real Estate Investment Analysis	6	2

Electives available in the Graduate Diploma in Project Management (CN64) – Property Development major – may also be undertaken with the prior approval of the Course Coordinator.

PROPERTY ECONOMICS MAJOR

Students must complete a total of 48 credit points from the following units:

Semester 1

CNB568	Real Estate Practice	5	2.5
CNP402	Principles of Valuation	6	2
CNP403	Property Maintenance & Asset Management	6	2
CNP426/1	Project Development	6	2
CNP430/1	Current Issues	6	2
CNP431/1	Project Management	6	2
CNP439	Property Management	6	2

Semester 2

CNB471	Property Practice Law	8	2.5
CNB472	Property Taxation Issues	8	2
CNB564	Valuation 7	8	3
CNB626	Land Development Studies	4	2
CNP422	Specialist Valuation	6	2
CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	2
CNP431/2	Project Management	6	2
CNP438	Real Estate Investment Analysis	6	2

Electives available in the Graduate Diploma in Project Management (CN64) – Property Development major – may also be undertaken with the prior approval of the Course Coordinator.

Note: A Graduate Certificate in Project Development with no major can also be taken by enrolling in 48 credit points from the following list:

Semester 1

CNB601	Formwork Design & Construction	4	2
CNP402	Principles of Valuation	6	2
CNP426/1	Project Development	6	2
CNP429	Cost Management & Economics	6	2
CNP430/1	Current Issues	6	2
CNP431/1	Project Management	6	2
CNP433/1	Project Management Law	6	2
CNP434	Time Management	6	2
CNP437	Field Trip	6	4 days
CNP439	Property Management	6	2

Semester 2

CNB471	Property Practice Law	8	2.5
CNB472	Property Taxation Issues	8	2
CNB564	Valuation 7	8	3
CNB626	Land Development Studies	4	2

CNP406	International Project Management	6	2
CNP426/2	Project Development	6	2
CNP430/2	Current Issues	6	3
CNP431	Project Management	6	2
CNP433/2	Project Management Law	6	2
CNP438	Real Estate Investment Analysis	6	2

Electives available in the Graduate Diploma in Project Management (CN64) or other units in the University may also be undertaken with the prior approval of the Course Coordinator, in order that the specific needs of individual students are met.

■ Graduate Certificate in Project Development (CN82) – Singapore

Location: Summershire Management Consultants Pte Ltd, Singapore

Aim

This course aims to broaden formal education and help professionals develop expertise in their chosen career paths. Students choose their own major of study to complement their continuing professional education program with an emphasis on management aspects.

Course Outline

Majors are offered in the following areas:

- Project management
- Property development
- Property economics
- Construction management
- Generic course (no specific major).

Identification of and solutions to practical problems are emphasised both in the teaching and learning process. Students completing this course with a grade point average of 5 or better will gain admission to the Graduate Diploma Course in Project Management.

For further information on this course, please contact Dr Jay Yang on (07) 3864 1028.

■ Graduate Certificate in Project Development (CN83) – Kuala Lumpur

Location: Amset (M) Sdn Bhd, Kuala Lumpur

Aim

This course aims to broaden formal education and help professionals develop expertise in their chosen career paths. Students choose their own major of study to complement their continuing professional education program with an emphasis on management aspects.

Course Outline

Majors are offered in the following areas:

- Project management
- Property development
- Property economics
- Construction management

- Generic course (no specific major).

Identification of and solutions to practical problems are emphasised both in the teaching and learning process. Students completing this course with a grade point average of 5 or better will gain admission to the Graduate Diploma Course in Project Management.

For further information on this course, please contact Dr Jay Yang on (07) 3864 1028.

□ **Course Requirements and Notes Relating to Undergraduate Courses**

Course Progression

It is important that students follow as normal a progression through their courses as possible. Units should be taken in an orderly sequence as set out in published course structures. Units failed should be picked up in the next semester that they are offered. Prerequisite units must normally be passed before a student may proceed to a further unit which has the prerequisite so specified. The Course Coordinator should be consulted regarding variations from the course structure. This is considered to be a major concession. Students who have failed units, or have doubts about having the necessary background to proceed, should seek the advice of the Course Coordinator.

Summer School (Mid-year Entry Courses)

The objective of running a Summer School for mid-year entry students is to provide an accelerated program which enables students to complete their courses in 3.5 years. Students resume a standard program from the third year. The Summer School is necessary in order for mid-year entry students to complete their courses in minimum time. If studies are not undertaken during the Summer School period, completion in minimum time is not possible.

Awards with Honours

Honours may be awarded to graduands of the Bachelor of Architecture, the four-year single degree and five-year double degree Bachelor of Engineering and Surveying courses, and the four-year Bachelor of Applied Science courses in Construction Management and Quantity Surveying. First class Honours, second class Honours division A and second class Honours division B may be awarded. Candidates for a degree with Honours must fulfil the requirements for a pass degree and achieve a standard of proficiency in all course units as may from time to time be determined by the Faculty academic board and approved by Academic Committee.

□ **Eligibility for Honours**

Eligibility for awards with Honours is not affected by the time taken to complete a course. However, to be eligible for such an award, a graduand must have completed the course within the maximum number of calendar years specified in the policy on time limits for completion of courses, Student Rule 1.19 in the QUT Handbook. Three- and four-year (full-time) courses must be completed in ten years. Combined degree courses must be completed in eleven years. Time limits are measured in calendar years from the first day of the first semester in which the student was enrolled and include periods of interruption such as leave of absence. In addition, to be eligible for an award with Honours, a graduand must have been enrolled in the course at QUT for at least two years of full-time study or its equivalent.

□ **Honours Based on Grade Point Average**

The Built Environment and Engineering Academic Board has resolved that awards with Honours for students graduating post-1992 will be based on grades achieved by students throughout the whole of their course as determined by the Grade Point Average calculation.

Units for which a student was awarded an exemption and units for which an ungraded pass or fail result is given are not included in the calculation.

Students obtaining a GPA of 6.0 or greater will normally qualify for the award of first class Honours. Students obtaining a GPA of 5.5 to 5.99 will normally qualify for the award of second class Honours division A. Students obtaining a GPA of 5.0 to 5.49 will normally qualify for the award of second class Honours division B.

The Faculty Academic Board will be reviewing the policy on Awards with Honours during 1996. Any amendments to policy will not disadvantage students.

Dean's List

Each semester, the Faculty of Built Environment and Engineering will publish a Dean's list comprising names of students achieving a GPA (grade point average) of 6.5 or better. The list will be widely circulated within the Faculty and Schools, posted on notice boards and published in the Faculty Newsletter.

Supplementary Assessment

It is not normally Faculty policy to grant supplementary examinations. However, at the discretion of the Dean of the Faculty, supplementary or further assessment may be permitted in cases where a student is near to the completion of their course.

In such cases it is normal policy to award an 'A' (Result Unfinalised) and to give the student further assessment. Following satisfactory completion of this further assessment the highest grade which may normally be awarded is a grade of 3 (Pass Conceded).

Use of Calculators in Examinations

Restrictions apply on the use of calculators in examinations. Students should consult the first year information booklets for details of the policies of individual schools.

Field Trips

Attendance at field trips or field projects in engineering courses is compulsory.

School of Civil Engineering Safety Shoes Policy

Students enrolled in units specified by the School of Civil Engineering will be required to wear safety shoes for some laboratory practicals and/or field trips. Students not wearing appropriate safety shoes on these occasions will be barred from (i) participating in activities in these units, and (ii) submitting any assessment associated with these activities. Hard hats and safety glasses/goggles will be supplied by the School of Civil Engineering as required.

Industrial Experience for Engineering and Surveying Courses

Industrial experience/practice forms part of the requirements of engineering and surveying degree courses, in order to provide a realistic background for formal academic studies and to ensure that students become effectively balanced in their professional development. For engineering students, it is a requirement of the Institution of Engineers, Australia, for graduate membership. Industrial experience/practice is undertaken during the long vacation or the mid-semester recess as an employee of a private firm, government agency or local authority.

Candidates must, not later than the fourth week of semester immediately following each period of industrial experience/practice, submit to the Course Coordinator (through the Faculty Office) a report in the required format describing the work carried out during the period of industrial experience/practice and including an Industrial Experience Record Form signed by the employer. Industrial Experience Record Forms are available from the Faculty Industrial Experience Officer in Room 1006, ITE Building, Gardens Point campus.

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial experience/practice in an engineering environment approved by the Course Coordinator.

A candidate for the degree of Bachelor of Applied Science (Surveying) must obtain at least 90 days of industrial experience/practice in a surveying environment approved by the Course Coordinator.

Candidates in the Bachelor of Engineering (Aerospace Avionics) degree are required to obtain 10 days' specialist experience in the avionics industry during the first year of their course. This is in addition to the 60 days' industrial experience/practice requirement.

A candidate for an Associate Diploma of Engineering should refer to the relevant course structure for specific industrial experience/practice requirements for these courses.

ENROLMENT IN INDUSTRIAL EMPLOYMENT/PRACTICE

Students in the Bachelor of Applied Science (Surveying) and Bachelor of Engineering courses should not formally enrol in industrial experience/practice.

However, students in Associate Diploma of Engineering courses must enrol in industrial experience units as these units carry credit points. For these students, the enrolment must be in the semester in which students expect to submit an Industrial Experience Record Form which will fulfil the minimum requirement of 15 weeks for the unit.

Industrial Experience for the Bachelor of Architecture Course (AR48)

A candidate for the Bachelor of Architecture degree must be engaged in approved employment for at least 48 recognised weeks within the first three years (Approved Employment A), and for at least 72 recognised weeks within the second three years (Approved Employment B).

Approved Employment

'Approved employment' is defined as working under the direction of an architect who is registered within the place of practice where the experience is obtained.

Eight Weeks at a Time

Periods of work experience of less than eight recognised weeks' continuous duration cannot be accredited.

Recognised Week

A 'recognised week' is a week of five days' work. During semester, when students normally work for four days per week, the 18 week semester (14 weeks in class and four weeks in examination), translates to 14.4 'recognised weeks'. This figure is rounded off to 14 weeks to take into account of public holidays. Students in continuous concurrent employment would normally accumulate 40 recognised weeks in a calendar year. (A three-day working week constitutes three-fifths of a recognised week. A six day working week constitutes sixth-fifths of a recognised week.

All reference to a 'week' hereinafter shall mean a 'recognised week'.

Years 1 and 2 Commencement

Candidates who are admitted into the course at the beginning of Years 1 and 2 must satisfy all of Approved Employment A & B requirements.

Year 3 Commencement

Candidates who are admitted into the course at the beginning of Year 3 must complete 24 weeks in Approved Employment A and all Approved Employment B requirements.

After Year 3 Commencement

Candidates who are admitted directly into the course after the end of the third year must satisfy Approved Employment B only.

- **Prerequisite**
Approved Employment A is normally a pre-requisite for Approved Employment B.
- **Allied Experience During the Course**
Candidates may accumulate up to 12 weeks maximum in Approved Employment A and up to 18 weeks maximum in Approved Employment B for experience gained prior or during the course in approved allied areas to architecture. (Commonly approved allied areas: Civil Engineering, Interior Design, Industrial Design, Quantity Surveying, Construction Management, Town Planning, Landscape Architecture, Building.)
- **Experience Prior to Commencement**
Candidates may accumulate a maximum of 24 weeks in Approved Employment A and a maximum of 36 weeks in Approved Employment B for satisfactory approved experience under the direction of an architect prior to enrolment in the course and these maximum periods can include:
 - satisfactory approved experience gained prior to enrolment in the course in approved allied areas of architecture (provided the total period claimed for experience in approved allied areas does not exceed the maximum periods set for that experience in Approved Employment A & B).
- **Experience During Leave of Absence**
Candidates may accumulate up to 24 weeks in Approved Employment A and 36 week in Approved Employment B during periods of approved leave of absence from formal classes. This may be in a period during the course or after completion of the academic course requirements.
- **Report Each Semester**
Semester update reports on progress are required at the end of each semester and examination results may not be issued until they are submitted.
- **Report Form Employment A**
QUT School of Architecture, Interior & Industrial Design Approved Employment report forms must be completed and lodged for Approved Employment A.
- **Report Log for Employment B**
The AACA log book of practical experience and university report forms must be completed and lodged to QUT for Approved Employment B.
- **Satisfactory Employment for Course Progression and Graduation**
For administrative purposes, candidates must enrol in Approved Employment A in the second semester of third year and then cannot proceed to fourth year until this unit of employment is satisfied, unless a special dispensation is granted. Candidates must enrol in Approved Employment B in the second semester of sixth year and will not be eligible to graduate until this unit of employment is satisfied. In both cases the accumulated credit, as recorded through the semester reports, will form the basis for accrediting work experience.
- **Credited Employment Counts Once**
Employment which has been approved or credited in Employment A cannot be considered for further approval or credit in Employment B.
- **Full-time Students in Final Two Years**
For candidates proposing to study the final 192 credit points in the course in two years full-time:
 - (a) Candidates (including those who had previously been studying full time) must have achieved a minimum of 36 weeks accredited to Approved Employment B, before commencing Year 4.

(b) Candidates who had previously been studying part-time, and who have satisfied Approved Employment A, may apply in Approved Employment B for credit of a maximum of 36 weeks of work experience accrued in the first three years which is in addition to that credited to Approved Employment A.

□ **Types of Experience**

Type of experience required:

(a) Approved Employment A – at least 50 per cent of time in undertaking design and/or documentation.

(b) Approved Employment B –

(i) 50 per cent of time in design stages and contract documentation (AACA item 4.3 and 4.5)

(ii) Preliminary site investigation and evaluation of at least one project (AACA item 4.2.4)

(iii) Project Management /Contract Administration of at least one project at 'observer' status where direct experience is unavailable (AACA items 4.7.19, 4.7.20, 4.7.21 and 4.7.22)

■ **Bachelor of Applied Science (Construction Management) (CN41)**

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3 years full-time plus 1 year part-time, or 6 years part-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Gary Thomas

Professional Recognition

Completion of the Bachelor of Applied Science (Construction Management) together with the related experience requirements enables a graduate to be eligible for membership of the Australian Institute of Building.

Special Course Requirements

Students are required to pass the examination segment of each unit to pass that unit.

A student registered in the part-time study program must be employed full-time by an approved building organisation or other approved body, ideally during the whole of their study, but as a minimum for three of the final four years of the course.

A student registered in the full-time study program must be similarly employed during the final year part-time segment of the course.

Part-time study generally involves 11 to 13 hours per week and comprises a full-day release from employment with the remaining time spread over two nights between 5.00 pm and 9.30 pm.

Units are offered only once each year. This means that full-time students are required to attend part of their program in the evening. All students must become familiar with and comply with the School's enrolment rules.

Full-Time Course Structure**Credit
Points Contact
Hrs/Wk****Year 1, Semester 1**

CNB119	Construction 1	12	6
CNB113	Building Technology 1	8	4
CNB121	Professional Studies A	8	3
COB165	Professional Writing/Learning at University	8	2.5
ISB170	Introduction to Computing	6	2
MAB299	Mathematics for Technologists	6	3

Year 1, Semester 2

CNB112	Construction 2	12	5
CNB114	Building Technology 2	8	4
CNB116	Measurement 1	6	3
CNB118	Building Services 1	6	2
CNB124	Professional Studies 1	8	4
PSB910	Construction Surveying	8	4

Year 2, Semester 1

CNB211	Construction 3	12	4
CNB213	Building Technology 3	6	4
CNB215	Measurement 2	6	3
CNB217	Building Services 2	6	3
CNB219	Economics of the Construction Industry	6	2
CNB221	Building Legislation	6	4
CNB223	Applied Computing 1	6	2

Year 2, Semester 2

CNB212	Construction 4	9	5
CNB216	Measurement 3	6	3
CNB218	Building Services 3	6	3
CNB220	Construction Management 1	6	2
CNB222	Estimating 1	6	2
CNB224	Professional Studies 2	9	3
CNB226	Torts & Contract Law	6	3

Year 3, Semester 1

CNB311	Construction 5	9	5
CNB313	Time Management 1	9	4
CNB315	Construction Business Management	6	3
CNB317	Construction Management 2	6	3
CNB323	Estimating 2	6	2
CNB325	Building Economics	6	2
CNB329	Building Contracts/Arbitration Law	6	3

Year 3, Semester 2

CNB316	Valuations & Investment Theory	6	3
CNB318	Commercial Law	6	2
CNB322	Construction Management Case Study	6	3
CNB326	Time Management 2	8	4
CNB328	Construction Management 3	8	3
CNB330	Applied Computing 2	6	3
CNB334	Professional Studies 3	8	3

Year 4, Semester 1

CNB003	Professional Practice 1A	9	3
CNB411	Development Process 1	9	3
CNB417	Research Project 1	12	4
CNB419	Applied Computing 3	9	3
CNB431	Elective 1	9	3

Year 4, Semester 2

CNB004	Professional Practice 2A	9	3
CNB412	Development Process 2	6	2
CNB416	Construction Management 4	12	4
CNB418	Research Project 2	12	4
CNB432	Elective 2	9	3

**BUILT
ENVIRONMENT
& ENGINEERING**

Part-Time Course Structure

Year 1, Semester 1

CNB119	Construction 1	12	6
CNB113	Building Technology 1	8	4
C0B165	Professional Writing/Learning at University	8	2.5

Year 1, Semester 2

CNB112	Construction 2	12	5
CNB114	Building Technology 2	8	4
MAB299	Mathematics for Technologists	6	3

Year 2, Semester 1

CNB211	Construction 3	12	4
CNB213	Building Technology 3	6	4
CNB221	Building Legislation	6	4

Year 2, Semester 2

CNB116	Measurement 1	6	3
CNB118	Building Services 1	6	2
CNB212	Construction 4	9	5
ISB170	Introduction to Computing	6	2

Year 3, Semester 1

CNB121	Professional Studies A	8	3
CNB215	Measurement 2	6	3
CNB223	Applied Computing 1	6	2
CNB311	Construction 5	9	5

Year 3, Semester 2

CNB216	Measurement 3	6	3
CNB218	Building Services 3	6	3
CNB222	Estimating 1	6	2
CNB226	Torts & Contract Law	6	3

Year 4, Semester 1

CNB217	Building Services 2	6	3
CNB219	Economics of the Construction Industry	6	2
CNB323	Estimating 2	6	2
CNB329	Building Contracts/Arbitration Law	6	3

Year 4, Semester 2

CNB220	Construction Management 1	6	2
CNB316	Valuations & Investment Theory	6	3
CNB322	Construction Management Case Study	6	3
PSB910	Construction Surveying	8	4

Year 5, Semester 1

CNB313	Time Management 1	9	4
CNB315	Construction Business Management	6	3
CNB317	Construction Management 2	6	3
CNB325	Building Economics	6	2

Year 5, Semester 2

CNB318	Commercial Law	6	2
CNB326	Time Management 2	8	4
CNB328	Construction Management 3	8	3
CNB330	Applied Computing 2	6	3

Year 6, Semester 1

CNB411	Development Process 1	9	3
CNB417	Research Project 1	12	4
CNB419	Applied Computing 3	9	3
CNB431	Elective 1	9	3

Year 6, Semester 2

CNB412	Development Process 2	6	2
CNB416	Construction Management 4	12	4

CNB418	Research Project 2	12	4
CNB432	Elective 2	9	3

Work Experience

A student registered in the part-time study program must be in approved full-time employment for three of the final four years of the course.

Part-time students should endeavour to complete their Professional Practice units in years 4 & 5 when they are to enrol and satisfy the requirements of the following units:

CNB021	Professional Practice 1	12
CNB022	Professional Practice 2	12
CNB023	Professional Practice 3	9
CNB024	Professional Practice 4	9

■ Bachelor of Applied Science (Construction Management) (CN31)

See course requirements and notes relating to undergraduate courses.

Course discontinued: No further intakes. This course has been replaced by the Bachelor of Applied Science (Construction Management) (CN41). Years 3 to 4 are offered to continuing students only.

Location: Gardens Point campus

Course Duration: 6 years part-time, 2 years full-time plus 2 years part-time

Total Credit Points: 287

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Gary Thomas

Professional Recognition

Completion of the Bachelor of Applied Science (Construction Management) together with the related experience requirements enables a graduate to be eligible for membership of the Australian Institute of Building.

Special Course Requirements

Students are required to pass the examination segment of each unit to pass that unit.

A student registered in the part-time study program must be employed full-time by an approved building organisation or other approved body, for three of the final four years of the course. A student registered in the full-time study program must be similarly employed during the final two years part-time segment of the course.

Part-time study generally involves 11 to 12 hours per week and comprises a half-day release from employment with the remaining time spread over two or three nights between 5.00 pm and 9.30 pm. For the first four years of the part-time course a whole day release from employment is required.

Units are offered only once each year. This means that full-time students are required to attend part of their program in the evening. All students must become familiar with and comply with the School's enrolment rules.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 3, Semester 1			
CNB341	Building & Civil Engineering Construction	4	2
CNB444	Mechanical & Electrical Estimating OR Elective	4	2

CNB527	PM2 – Quantitative Techniques 3	3	1.5
CNB540	Estimating 2	5	2.5
CNB545	PM3 – Construction Planning Techniques 1	7	3.5
CNB501	Building Management 3	4	2
Year 3, Semester 2			
CNB301	PM1 – Advanced Construction Methods	4	2
CNB502	Building Management 4	4	2
CNB543	Law 4 – Torts & Arbitration	3	1.5
CNB548	PM4 – Construction Planning Techniques 2	8	4
CNB550	PM5 – Project Cost Control	6	3
Year 4, Semester 1			
CEB701	Civil Engineering Quantities 1 OR Elective	4	2
CNB623	PM6 – Building Development Techniques 1	4	2
CNB642	Applied Computer Techniques	6	2
CNB656/1	Building Research	8	4
CNB603	Building Management 5	4	2
Year 4, Semester 2			
CNB401	Building Economics & Cost Planning	4	2
CNB606	PM8 – Land Development Studies	4	2
CNB624	PM7 – Building Development Techniques 2	4	2
CNB643	Law 5 – Commercial Law OR Elective	3	1.5
CNB656/2	Building Research	10	5
Elective units			
Electives may be taken from any other course offered by the University in consultation with the Course Coordinator.			
Part-Time Course Structure			
Year 3, Semester 1			
CNB009	Measurement of Construction 3	4	2
CNB013	Building Services 1 – HVAC	4	2
CNB341	Building & Civil Engineering Construction	4	2
CNB342	Law 2 – Principles & Property	3	1.5
SSB908	Behavioural Science	6	3
PSB904	Surveying & Measuring	4	2
Year 3, Semester 2			
CNB010	Measurement of Construction 4	4	2
CNB014	Building Services 2 – Electrical	4	2
CNB347	Hygiene & Sanitation	4	2
CNB405	Project Equipment & Safety	4	2
PSB905	Project Survey	4	2
Year 4, Semester 1			
CNB403	Building Management 1	4	2
CNB440/1	Law 3 – Building Contracts	3	1
CNB442/1	Valuation & Dilapidations	4	2
CNB443	Building Services 3	5	2.5
CNB444	Mechanical & Electrical Estimating OR Elective	4	2
CNB601	Formwork Design & Construction	4	2
Year 4, Semester 2			
CNB301	PM1 – Advanced Construction Methods	4	2
CNB343	Economics of the Construction Industry OR Elective	4	2
CNB404	Building Management 2	4	2
CNB440/2	Law 3 – Building Contracts	3	1
CNB442/2	Valuation & Dilapidations	2	1
CNB446	Estimating 1	5	2.5
Year 5, Semester 1			
CEB701	Civil Engineering Quantities OR Elective	4	2
CNB527	PM2 – Quantitative Techniques	3	1.5

CNB540	Estimating 2	5	2.5
CNB545	PM3 – Construction Planning Techniques 1	7	3.5
CNB501	Building Management3	4	2

Year 5, Semester 2

CNB401	Building Economics & Cost Planning	4	2
CNB502	Building Management 4	4	2
CNB543	Law 4 – Torts & Arbitration	3	1.5
CNB548	PM4 – Construction Planning Techniques 2	8	4
CNB550	PM5 – Project Cost Control	6	3

Year 6, Semester 1

CNB623	PM6 – Building Development Techniques 1	4	2
CNB642	Applied Computer Techniques	6	3
CNB656/1	Building Research	8	4
CNB603	Building Management 5	4	2

Year 6, Semester 2

CNB606	PM8 – Land Development Studies	4	2
CNB624	PM7 – Building Development Techniques 2	4	2
CNB643	Law 5 – Commercial Law OR Elective	3	1.5
CNB656/2	Building Research	10	5

Elective units

Electives may be taken from any other course offered by the University in consultation with the Course Coordinator.



■ Bachelor of Applied Science (Property Economics) (CN32)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3 years full-time, 6 years part-time

Total Credit Points: 288

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Professional Recognition

Completion of the undergraduate course together with the related experience requirements make a graduate eligible for membership of the Australian Institute of Valuers and Land Economists, registration by the Valuers Registration Board of Queensland, and licensing as a real estate agent.

Special course requirements

Full-time students must undertake six weeks' professional work experience during the duration of the course. All work experience is to be approved by the Course Coordinator to verify that it is appropriate.

A student registered in the part-time study program must be employed full-time in an approved organisation for three of the final four years of the course.

Part-time study generally involves 10 hours per week and comprises a half-day release from employment with the remaining time spread over two or three nights between 5.00 pm and 9.30 pm.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CNB342	Law 1	8	2
CNB161	Building Studies	8	4.5

COB004	Professional Writing & Learning at University	8	2.5
ISB180	Computer Applications	8	2
CNB367	Accounting 1	8	2
CNB180	Macro Economics	8	2
Year 1, Semester 2			
CNB263	Principles of Valuations	8	3
CNB568	Real Estate Practice	8	2
CNB600	Real Estate Agency	8	2
CNB162	Building Studies 2	8	4
SSB980	Managerial Behaviour	8	2
CNB186	Micro Economics	8	2
Year 2, Semester 1			
CNB363	Investment Valuation	12	4
CNB567	Real Estate Market Analysis	8	2
CNB643	Law 2	8	2
CNB166	Urban Economics	8	2
CNB366	Accounting & Finance	12	2
Year 2, Semester 2			
CNB464	Rural Valuation	8	4
CNB665	Property Management & Asset Management 1	8	4
CNB261	Building Studies 3	8	4
CNB467	Land Use Planning	8	2
CNB565	Land Management & Administration	8	2
CNB262	Construction Economics	8	2
Year 3, Semester 1			
CNB563	Statutory Valuation	8	2
CNB666	Property Management & Asset Management 2	8	2
CNB663	Property Development 1	8	2
CNB465	Real Estate Investment Analysis 1	8	3
CNB661	Research Project 1	8	2
	Elective	8	2
Year 3, Semester 2			
CNB564	Specialist Valuations	8	2
CNB664	Property Development 2	12	2
CNB466	Real Estate Investment Analysis 2	8	2
CNB662	Research Project 2	12	2
	Elective	8	2
Part-Time Course Structure			
Year 1, Semester 1			
CNB161	Building Studies 1	8	4.5
COB004	Professional Writing & Learning at University	8	2.5
CNB180	Macro Economics	8	2
Year 1, Semester 2			
CNB263	Principles of Valuation	8	3
CNB162	Building Studies 2	8	4
CNB188	Micro Economics	8	2
Year 2, Semester 1			
CNB342	Law 1	8	2
ISB180	Computer Applications	8	2
CNB367	Accounting 1	8	2
Year 2, Semester 2			
CNB568	Real Estate Practice	8	2
CNB600	Real Estate Agency	8	2
SSB908	Managerial Behaviour	8	2
Year 3, Semester 1			
CNB363	Investment Valuation	12	4
CNB567	Real Estate Market Analysis	8	2
CNB643	Law 2	8	2

Year 3, Semester 2

CNB464	Rural Valuation	8	4
CNB665	Property Management & Asset Management 1	8	2
CNB261	Building Studies 3	8	4

Year 4, Semester 1

CNB166	Urban Economics	8	2
CNB368	Accounting & Finance	12	2

Year 4, Semester 2

CNB467	Land Use Planning	8	2
CNB565	Land Management & Administration	8	2
CNB262	Construction Economics	8	2

Year 5, Semester 1

CNB563	Statutory Valuation	8	2
CNB666	Property Management & Asset Management 2	8	2
CNB663	Property Development	8	2

Year 5, Semester 2

CNB564	Special Valuation	8	2
CNB664	Property Development 2	12	2

Year 6, Semester 1

CNB465	Real Estate Investment Analysis 1	8	3
CNB661	Research Project 1	8	2
	Elective	8	2

Year 6, Semester 2

CNB662	Research Project 2	8	2
CNB466	Real Estate Investment Analysis 2	12	2
	Elective	8	2

■ Bachelor of Applied Science (Quantity Surveying) (CN43)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3 years full-time plus 1 year part-time, or 6 years part-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Don Campbell-Stewart

Special Course Requirements

Students are required to pass the examination segment of each unit to pass that unit.

A student registered in the part-time study program must be employed full-time by a building organisation or quantity surveying office under the direction of a qualified quantity surveyor, ideally during the whole of their study, but as a minimum for three of the final four years of the course.

A student registered for the full-time study program must be similarly employed during the final year part-time segment of the course.

Part-time study generally involves 11 to 13 hours per week and comprises a full-day release from employment with the remaining time spread over two nights between 5.00 pm and 9.30 pm.

Units are offered only once each year. This means that full-time students are required to attend part of their program in the evening. All students must become familiar with and comply with the School's enrolment rules.

Professional Recognition

Completion of the Bachelor of Applied Science (Quantity Surveying) together with the related experience requirements enables a graduate to be eligible for membership of the Australian Institute of Quantity Surveying.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CNB113	Building Technology 1	8	4
CNB119	Construction 1	12	6
CNB121	Professional Studies A	8	3
COB165	Professional Writing/Learning at Univeristy	8	2.5
ISB170	Introduction to Computing	6	2
MAB299	Mathematics for Technologists	6	3
Year 1, Semester 2			
CNB112	Construction 2	12	5
CNB114	Building Technology 2	8	4
CNB116	Measurement 1	6	3
CNB118	Building Services 1	6	2
CNB124	Professional Studies 1	8	3
PSB910	Construction Management	8	4
Year 2, Semester 1			
CNB211	Construction 3	12	4
CNB213	Building Technology 3	6	4
CNB215	Measurement 2	6	3
CNB217	Building Services 2	6	3
CNB219	Economics of the Construction Industry	6	2
CNB221	Building Legislation	6	4
CNB223	Applied Computing 1	6	2
Year 2, Semester 2			
CNB212	Construction 4	9	5
CNB216	Measurement 3	6	3
CNB218	Building Services 3	6	3
CNB220	Construction Management 1	6	2
CNB222	Estimating 1	6	2
CNB224	Professional Studies 2	9	3
CNB226	Torts & Contract Law	6	3
Year 3, Semester 1			
CNB311	Construction 5	9	5
CNB313	Time Management 1	9	4
CNB315	Construction Business Management	6	3
CNB319	Professional Management	6	3
CNB323	Estimating 2	6	2
CNB327	Building Economics 1	6	2
CNB329	Building Contracts/Arbitration Law	6	3
Year 3, Semester 2			
CNB312	Measurement 4	9	4
CNB314	Contract Administration 1	6	3
CNB316	Valuations & Investment Theory	6	3
CNB318	Commercial Law	6	2
CNB320	Building Economics 2	6	2
CNB324	Professional Studies 3A	9	3
CNB332	Applied Computing 2A	6	3
Year 4, Semester 1			
CNB001	Professional Practice 1A	9	3
CNB411	Development Process 1	9	3
CNB415	Contract Administration 2	9	3
CNB417	Research Project 1	12	4
CNB421	Elective 1	9	3

Year 4, Semester 2

CNB002	Professional Practice 2A	9	3
CNB412	Development Process 2	6	2
CNB414	Civil Engineering Quantities	12	4
CNB418	Research Project 2	12	4
CNB422	Elective 2	9	3

Part-Time Course Structure**Year 1, Semester 1**

CNB119	Construction 1	12	6
CNB113	Building Technology 1	8	4
COB165	Professional Writing/Learning at University	8	2.5

Year 1, Semester 2

CNB112	Construction 2	12	5
CNB114	Building Technology 2	8	4
MAB299	Mathematics for Technologists	6	3

Year 2, Semester 1

CNB211	Construction 3	12	4
CNB213	Building Technology 3	6	4
CNB221	Building Legislation	6	4

Year 2, Semester 2

CNB116	Measurement 1	6	3
CNB118	Building Services 1	6	2
CNB212	Construction 4	9	5
ISB170	Introduction to Computing	6	2

Year 3, Semester 1

CNB121	Professional Studies A	8	3
CNB215	Measurement 2	6	3
CNB223	Applied Computing 1	6	2
CNB311	Construction 5	9	5

Year 3, Semester 2

CNB216	Measurement 3	6	3
CNB218	Building Services 3	6	3
CNB222	Estimating 1	6	2
CNB226	Torts & Contract Law	6	3

Year 4, Semester 1

CNB217	Building Services 2	6	3
CNB219	Economics of the Construction Industry	6	2
CNB319	Professional Management	6	3
CNB323	Estimating 2	6	2
CNB329	Building Contracts/Arbitration Law	6	3

Year 4, Semester 2

CNB220	Construction Management 1	6	2
CNB312	Measurement 4	9	4
CNB316	Valuations & Investment Theory	6	3
PSB910	Construction Surveying	8	4

Year 5, Semester 1

CNB313	Time Management 1	9	4
CNB315	Construction Business Management	6	3
CNB327	Building Economics 1	6	2
CNB421	Elective 1	9	3

Year 5, Semester 2

CNB314	Contract Administration 1	6	3
CNB318	Commercial Law	6	2
CNB320	Building Economics 2	6	3
CNB332	Applied Computing 2A	6	3

Year 6, Semester 1

CNB411	Development Process 1	9	3
CNB415	Contract Administration 2	9	3
CNB417	Research Project 1	12	4

Year 6, Semester 2

CNB412	Development Process 2	6	2
CNB414	Civil Engineering Quantities	12	4
CNB418	Research Project 2	12	4
CNB422	Elective 2	9	3

Work Experience

A student registered in the part-time study program must be in approved full-time employment for three of the final four years of the course.

In the semesters in which part-time students undertake their professional experience they are to enrol and satisfy the requirements of the following units:

CNB031	Professional Practice 1	12
CNB032	Professional Practice 2	12
CNB033	Professional Practice 3	9
CNB034	Professional Practice 4	9

■ Bachelor of Applied Science (Quantity Surveying) (CN33)

See course requirements and notes relating to undergraduate courses.

Course discontinued: No further intakes. This course has been replaced by the Bachelor of Applied Science (Quantity Surveying) (CN43). Years 3 to 4 are offered to continuing students only.

Location: Gardens Point campus

Course Duration: 6 years part-time, 2 years full-time plus 2 years part-time

Total Credit Points: 287

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Don Campbell-Stewart

Professional Recognition

Completion of the Bachelor of Applied Science (Quantity Surveying) together with the related experience requirements enables a graduate to be eligible for membership of the Australian Institute of Quantity Surveying.

Special Course Requirements

Students are required to pass the examination segment of each unit to pass that unit.

A student registered in the part-time study program must be employed in a building or quantity surveying office under the direction of a qualified quantity surveyor for three of the final four years of the course.

A student registered in the full-time study program must be similarly employed during the final two-year part-time segment of the course.

Part-time study generally involves 11 to 12 hours per week and comprises a half-day release from employment with the remaining time spread over two or three nights between 5.00 pm and 9.30 pm. For the first four years of the part-time course a whole day release from employment is required.

Units are offered only once each year. This means that full-time students are required to attend part of their program in the evening. All students must become familiar with and comply with the School's enrolment rules.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 3, Semester 1			
CNB341	Building & Civil Engineering Construction	4	2
CNB444	Mechanical & Electrical Estimating		
	OR		
	Elective unit	4	2
CNB451	Computer Software Applications 1	4	2
CNB461	Measurement of Construction 5	3	1.5
CNB540	Estimating 2	5	2.5
CNB545	PM3 – Construction Planning Techniques 1	7	3.5
Year 3, Semester 2			
CNB301	PM1 – Advanced Construction Methods	4	2
CNB462	Measurement of Construction 6	3	1.5
CNB502	Building Management 4	4	2
CNB520	Specifications	3	1.5
CNB524	Measurement of Construction 7	4	2
CNB526	Post Contract Services 1	5	2.5
CNB552	Office Management	2	1
Year 4, Semester 1			
CNB603	Building Management 5	4	2
CEB701	Civil Engineering Quantities 1	4	2
CNB623	PM6 – Building Development Techniques 1	4	2
CNB647	Cost Planning & Cost Control 1	4	2
CNB653	Post Contract Service 2	5	2.5
CNB656/1	Building Research	8	4
Year 4, Semester 2			
CEB901	Civil Engineering Quantities 2	4	2
CNB452	Computer Software Applications 2	4	2
CNB624	PM7 Building Development Techniques 2	4	2
CNB648	Cost Planning & Cost Control 2	4	2
CNB656/2	Building Research	10	5
Elective units			
Electives may be taken from any other course offered by the University in consultation with the Course Coordinator.			
Part-Time Course Structure			
Year 3, Semester 1			
CNB009	Measurement of Construction 3	4	2
CNB013	Building Services 1 – HVAC	4	2
CNB341	Building & Civil Engineering Construction	4	2
CNB342	Law 2 – Principles & Property	3	1.5
CNB442/1	Valuation & Dilapidations	4	2
PSB904	Surveying & Measuring	4	2
Year 3, Semester 2			
CNB010	Measurement of Construction 4	4	2
CNB014	Building Services 2 – Electrical	4	2
CNB343	Economics of the Construction Industry OR Elective	4	2
CNB347	Hygiene & Sanitation	4	2
CNB442/2	Valuation & Dilapidations 2	1	
CNB520	Specifications	3	1.5
Year 4, Semester 1			
CNB701	Civil Engineering Quantities 1	4	2
CNB403	Building Management 1	4	2
CNB440/1	Law 3 – Building Contracts	3	1

CNB443	Building Services 3	5	2.5
CNB451	Computer Software Applications 1	4	2
CNB461	Measurement of Construction 5	3	1.5
Year 4, Semester 2			
CEB901	Civil Engineering Quantities 2	4	2
CNB301	PM1 – Advanced Construction Methods	4	2
CNB404	Building Management 2	4	2
CNB440/2	Law 3 – Building Contracts	3	1
CNB446	Estimating 1	5	2.5
CNB462	Measurement of Construction 6	3	1.5
Year 5, Semester 1			
CNB444	Mechanical & Electrical Estimating OR Elective	4	2
CNB501	Building Management 3	4	2
CNB527	PM2 – Quantitative Techniques	3	1.5
CNB540	Estimating 2	5	2.5
CNB545	PM3 – Construction Planning Techniques 1	7	3.5
Year 5, Semester 2			
CNB502	Building Management 4	4	2
CNB524	Measurement of Construction 7	4	2
CNB526	Post Contract Services 1	5	2.5
CNB543	Law 4 – Torts & Arbitration	3	1.5
CNB552	Office Management	3	1.5
CNB643	Law 5 – Commercial Law OR Elective	3	1.5
Year 6, Semester 1			
CNB603	Building Management 5	4	2
CNB623	PM6 – Building Development Techniques 1	4	2
CNB647	Cost Planning & Cost Control 1	4	2
CNB653	Post Contract Services 2	5	2.5
CNB656/1	Building Research	8	4
Year 6, Semester 2			
CNB452	Computer Software Applications 2	4	2
CNB624	PM7 – Building Development Techniques 2	4	2
CNB648	Cost Planning & Cost Control 2	4	2
CNB656/2	Building Research	10	5

Elective units

Electives may be taken from any other course offered by the University in consultation with the Course Coordinator.

■ Bachelor of Architecture (AR48)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 6 years part-time

Total Credit Points: 384

Standard Credit Points/Part-Time Semester: 32

Course Coordinator: Mr Dan Nutter

Professional Recognition

On completion of the course and one year's postgraduate practical experience, graduates are eligible to apply for associate membership of the Royal Australian Institute of Architects and are eligible to apply to sit for the registration examination conducted by the Board of Architects of Queensland.

Special Course Requirements

A Bachelor of Architecture student must be engaged in approved employment for at least 48 recognised weeks within the first three years (ARB795 Approved Employment A) and for at least 72 recognised weeks within the second three years (ARB796 Approved Employment B). For details refer to the Section 'Course Requirements and Notes relating to Undergraduate Courses'.

Segmented Course Units

Where course units contain discrete segments identified in the synopsis, students are generally expected to pass all segments in order to pass the course unit.

The final grade for the unit will be aggregated from the grades attained in the segments undertaken.

Course Structure

Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
ARB001	Architectural Design 1	12	8
ARB011	Contextual Studies 1	6	3
ARB021	Technology & Science 1	8	3
COB163	Professional Writing	6	1.5
Year 1, Semester 2			
ARB002	Architectural Design 2	12	8
ARB012	Contextual Studies 2	8	3
ARB022	Technology & Science 2	12	5
Year 2, Semester 1			
ARB003	Architectural Design 3	12	6
ARB013	Contextual Studies 3	8	4
ARB023	Technology & Science 3	12	4
Year 2, Semester 2			
ARB004	Architectural Design 4	12	6
ARB014	Contextual Studies 4	8	4
ARB024	Technology & Science 4	12	4
Year 3, Semester 1			
ARB005	Architectural Design 5	12	6
ARB015	Contextual Studies 5	8	2
ARB025	Technology & Science 5	12	6
Year 3, Semester 2			
ARB006	Architectural Design 6	12	6
ARB016	Contextual Studies 6	8	3
ARB026	Technology & Science 6	12	5
ARB795	Approved Employment A	36	
Year 4, Semester 1			
ARB007/1	Architectural Design 7	12	6
ARB017	Contextual Studies 7	6	2
ARB031/1	Professional Studies 1	8	3
ARB045	Elective A	6	2
Year 4, Semester 2			
ARB007/2	Architectural Design 7	12	6
ARB027	Technology & Science 7	6	2
ARB031/2	Professional Studies 1	8	3
ARB046	Elective B	6	2
Year 5, Semester 1			
ARB008/1	Architectural Design 8	12	6
ARB032/1	Professional Studies 2	8	3
ARB047	Elective C	6	2
ARB051	Research Methods	6	2

Year 5, Semester 2

ARB008/2	Architectural Design 8	12	6
ARB018	Contextual Studies 8	6	2
ARB032/2	Professional Studies 2	8	3
ARB052	Architectural Research 1	6	2

Year 6, Semester 1

ARB033/1	Professional Studies 3	8	2
ARB053	Architectural Research 2	24	6

Year 6, Semester 2

ARB033/2	Professional Studies 3	8	2
ARB054	Architectural Project	24	6
ARB796	Approved Employment B	60	

■ Bachelor of Architecture (AR41)

Course Discontinued: No further intakes. This course has been replaced by the Bachelor of Architecture (AR48). Years 4 to 6 are offered to continuing students only.

Location: Gardens Point campus

Course Duration: 6 years part-time

Total Credit Points: 288

Standard Credit Points/Part-Time Semester: 24

Course Coordinator: Mr Dan Nutter

Professional Recognition

On completion of the course and one year's postgraduate practical experience graduates are eligible for associate membership of the Royal Australian Institute of Architects and are eligible to sit for the registration examination conducted by the Board of Architects of Queensland.

Special Course Requirements

A student must be engaged in approved employment for 11 months per year for four of the six years of the course, including one of the two final years. Approved employment is defined as working under the direction of an architect or, for a period not exceeding six months, gaining experience in a related field approved by the Head of School. Students should work under the same employer for at least six months. Students **must enrol** in approved employment units in the semester (or summer school period) in which they expect to finalise the specific approved employment unit involved, so that they can be credited with a result for the unit. All necessary documentation must be forwarded to the Course Coordinator in time for the unit to be finalised by the end of the semester in which the student is enrolled.

Course Structure

Course Structure		Credit Points	Contact Hrs/Wk
Year 4, Semester 1			
ARB491/1	History of Architecture & Art 3	2	1
ARB493/1	Design 7	10	5
ARB495/1	Professional Studies 1	8	4
ARB497/1	Advanced Technology	4	2
Year 4, Semester 2			
ARB491/2	History of Architecture & Art 3	2	1
ARB493/2	Design 7	10	5
ARB495/2	Professional Studies 1	8	4
ARB497/2	Advanced Technology	4	2

Year 5, Semester 1

ARB591/1	History of Architecture & Art 4	2	1
ARB593/1	Design 8	10	5
ARB595/1	Professional Studies 2	8	4
ARB590	Elective 1A	4	2

Year 5, Semester 2

ARB591/2	History of Architecture & Art 4	2	1
ARB593/2	Design 8	10	5
ARB595/2	Professional Studies 2	8	4
ARB598	Elective 1B	4	2

Year 6, Semester 1

ARB693	Design 9	16	5
ARB695/1	Professional Studies 3	4	2
ARB697/1	Elective 2	4	2

Year 6, Semester 2

ARB695/2	Professional Studies 3	4	2
ARB697/2	Elective 2	20	5

Approved Employment Units

ARB791	Approved Employment 1
ARB792	Approved Employment 2
ARB793	Approved Employment 3
ARB794	Approved Employment 4

■ Bachelor of Built Environment (BN30)

With majors in: Architectural Studies, Industrial Design, Interior Design, Landscape Architecture, and Urban and Regional Planning.

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3 years full-time

Total Credit Points: 288

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Dan Nutter

Professional Recognition

ARCHITECTURAL STUDIES MAJOR

Upon successful completion of the Bachelor of Built Environment (Architectural Studies) students are eligible to apply for entry to the fourth year of the part-time Bachelor of Architecture course.

Upon completion of the final three years of the Bachelor of Architecture course, during which time students have been employed in an approved professional practice for a minimum of 72 recognised weeks, the academic requirements for membership of professional bodies are met.

INDUSTRIAL DESIGN MAJOR

Successful completion of the Bachelor of Built Environment (Industrial Design) satisfies the entry requirement for the Graduate Diploma in Industrial Design, graduates of which are eligible for Associate Membership of the Design Institute of Australia.

INTERIOR DESIGN MAJOR

Successful completion of the Bachelor of Built Environment (Interior Design) satisfies the requirements for entry into the Graduate Diploma in Interior Design, which is accredited by the Design Institute of Australia.

LANDSCAPE ARCHITECTURE MAJOR

Successful performance in the Bachelor of Built Environment (Landscape Architecture) enables students to gain entry to the Graduate Diploma/Masters courses. The Graduate Diploma in Landscape Architecture is the only course in Landscape Architecture in Queensland, and one of the courses in Landscape Architecture accredited by the Australian Institute of Landscape Architects.

URBAN AND REGIONAL PLANNING MAJOR

Successful completion of the Bachelor of Built Environment (Urban and Regional Planning) enables students to gain entry to the Graduate Diploma/Masters in Urban and Regional Planning, which is fully accredited by the Royal Australian Planning Institute.

Segmented course units

Where course units contain discrete segments identified in the synopsis, students are generally expected to pass all segments in order to pass the course unit. Detailed requirements are issued by the School.

Course Structure	Credit Points	Contact Hrs/Wk
ARCHITECTURAL STUDIES MAJOR		
Year 1, Semester 1		
ARB001 Architectural Design 1	12	8
ARB011 Contextual Studies 1	6	3
ARB021 Technology & Science 1	8	3
ARB061 Architectural Applications 1	12	4
COB163 Professional Writing	6	1.5
MAB181 Applied Mathematics for Designers 1	6	3
Year 1, Semester 2		
ARB002 Architectural Design 2	12	8
ARB012 Contextual Studies 2	8	3
ARB022 Technology & Science 2	12	5
ARB062 Architectural Applications 2	8	4
ARB071 Environmental Studies	6	2
Year 2, Semester 1		
ARB003 Architectural Design 3	12	6
ARB013 Contextual Studies 3	8	4
ARB023 Technology & Science 3	12	4
ARB041 Elective 1	6	2
ARB063 Architectural Applications 3	12	4
Year 2, Semester 2		
ARB004 Architectural Design 4	12	6
ARB014 Contextual Studies 4	8	4
ARB024 Technology & Science 4	12	4
ARB042 Elective 2	6	2
ARB064 Architectural Applications 4	8	4
Year 3, Semester 1		
ARB005 Architectural Design 5	12	6
ARB015 Contextual Studies 5	8	3
ARB025 Technology & Science 5	12	6
ARB043 Elective 3	6	2
ARB065 Architectural Applications 5	12	4
Year 3, Semester 2		
ARB006 Architectural Design 6	12	6
ARB016 Contextual Studies 6	8	2
ARB026 Technology & Science 6	12	5
ARB044 Elective 4	6	2
ARB066 Architectural Applications 6	8	4

INDUSTRIAL DESIGN MAJOR

Year 1, Semester 1

ARB141	The Human Environment 1	6	2
ARB147	History of the Built Environment 1	6	3
ARB168	Technology & Science 1	12	6
ARB177	Introductory Industrial Design 1	18	9
COB163	Professional Writing	6	1.5

Year 1, Semester 2

ARB241	History of the Built Environment 2	6	3
ARB249	The Human Environment 2	6	2
ARB251	Ergonomics for Industrial Designers 1	6	2
ARB268	Technology & Science 2	12	6
ARB277	Introductory Industrial Design 2	18	9

Year 2, Semester 1

ARB291	The Human Environment 3	6	2
ARB350	Industrial Design 1	18	8
ARB351	Ergonomics for Industrial Designers 2	6	2
ARB353	Manufacturing Technology 1	12	6
ARB354	Computer-aided Industrial Design 1	6	2

Year 2, Semester 2

ARB292	The Human Environment 4	6	2
ARB450	Industrial Design 2	18	8
ARB453	Manufacturing Technology 1	12	6
ARB454	Computer-aided Industrial Design 2	6	2
ARB457	Elective 1 ¹⁷	6	2

Year 3, Semester 1

ARB550	Industrial Design 3	18	8
ARB553	Manufacturing Technology 3	12	5
ARB554	Computer-aided Industrial Design 3	6	2
ARB556	Product Analysis & Development	6	2
ARB557	Elective 2 ¹⁷	6	2

Year 3, Semester 2

ARB646	Law of the Built Environment	6	2
ARB650	Industrial Design 4	18	8
ARB653	Manufacturing Technology 4	12	5
ARB654	Computer-aided Industrial Design 4	6	2
ARB657	Elective 3 ¹⁷	6	2

INTERIOR DESIGN MAJOR

Year 1, Semester 1

ARB141	The Human Environment 1	6	2
ARB146	Introduction to Interior Technology 1	6	2
ARB147	History of the Built Environment 1	6	3
ARB161	Light & Colour Studies 1	6	3
ARB176	Introductory Interior Design 1	18	9
COB163	Professional Writing	6	1.5

Year 1, Semester 2

ARB241	History of the Built Environment 2	6	3
ARB246	Introduction to Interior Technology 2	12	5
ARB249	The Human Environment 2	6	2
ARB267	Light & Colour Studies 2	6	3
ARB276	Introductory Interior Design 2	18	9

Year 2, Semester 1

ARB041	Elective 1 ¹⁷	6	2
ARB360	Interior Design 1	18	8
ARB361	Interior Technology 1	12	6

¹⁷ Electives must be approved by the relevant Major Coordinator.

ARB362	Furniture & Fittings 1	6	2
ARB291	The Human Environment 3	6	2
Year 2, Semester 2			
ARB042	Elective 2 ¹⁸	6	2
ARB460	Interior Design 2	18	8
ARB461	Interior Technology 2	12	6
ARB462	Furniture & Fittings 2	6	2
ARB292	The Human Environment 4	6	2
Year 3, Semester 1			
ARB043	Elective 3 ¹⁸	6	2
ARB560	Interior Design 3	18	7
ARB561	Interior Technology 3	12	6
ARB562	Furniture & Fittings 3	6	2
ARB663	Research Methods	6	2
Year 3, Semester 2			
ARB044	Elective 4 ¹⁸	6	2
ARB646	Law of the Built Environment	6	2
ARB660	Interior Design 4	18	7
ARB661	Interior Technology 4	12	6
ARB662	Furniture & Fittings 4	6	2
LANDSCAPE ARCHITECTURE MAJOR			
Year 1, Semester 1			
MAB195	Quantitative Methods 1	6	3
PHB144	Applied Science for Designers 1	6	3
PSB010	Introductory Design 1	12	6
PSB016	History of the Built Environment 1	6	3
PSB050	The Human Environment 1	4	2
PSB070	Map & Air Photo Interpretation	2	1
Year 1, Semester 2			
CHB292	Applied Science for Designers 2	4	2
MAB196	Quantitative Methods 2	6	3
PSB011	Introductory Design 2	20	10
PSB017	History of the Built Environment 2	8	3
PSB051	The Human Environment 2	6	2
PSB054	Environmental Science	4	2
PSB056	Applied Land Science for Designers	4	1
Year 2, Semester 1			
PSB012	Planning & Landscape Design 1	21	9
PSB030	Introduction to the Professions	3	1
PSB040	Graphic Communication	6	3
PSB052	The Human Environment 3	6	3
PSB057	Landscape Ecology 1	8	4
PSB071	Site Measurement	4	1
Year 2, Semester 2			
PSB013	Planning & Landscape Design 2	20	6
PSB053	The Human Environment 4	4	2
PSB058	Landscape Ecology 2	8	3
PSB059	Population & Urban Studies	6	2
PSB060	Introduction to Economics	2	1
PSB072	Design Science	4	2
PSB073	Computer Techniques	4	2
Year 3, Semester 1			
PSB014	Planning & Landscape Design 3	20	6
PSB018	Land Use Generation	4	2
PSB041	Report Preparation	2	1

¹⁸ Electives must be approved by the relevant Major Coordinator.

PSB074	Land Development	8	3
PSB244	Landscape Graphics	6	2
PSB275	Landscape Construction 1	6	3
Year 3, Semester 2			
ARB646	Law of the Built Environment	4	2
PSB015	Planning & Landscape Design 4	20	6
PSB019	Planting Design	3	1
PSB020	Land Use Policies	4	2
PSB021	Conservation Theory	2	1
PSB032	Issues & Ethics	2	1
PSB061	Impacts & Assessment	5	2
PSB276	Landscape Construction 2	6	3
PSB280	Elective Unit (Landscape Architecture) ¹⁹	4	2

URBAN AND REGIONAL PLANNING MAJOR

Year 1, Semester 1

BNB001	Learning at University	2	1.5
COB163	Professional Writing	6	1.5
MAB195	Quantitative Methods 1	6	3
PHB144	Applied Science for Designers 1	6	3
PSB010	Introductory Design 1	12	6
PSB016	History of the Built Environment 1	6	3
PSB050	The Human Environment 1	4	2
PSB070	Map & Air Photo Interpretation	2	1

Year 1, Semester 2

CHB292	Applied Science for Designers 2	4	2
MAB196	Quantitative Methods 2	6	3
PSB011	Introductory Design 2	20	10
PSB017	History of the Built Environment 2	8	3
PSB051	The Human Environment 2	6	2
PSB054	Environmental Science	4	2
PSB056	Applied Land Science for Designers	4	1

Year 2, Semester 1

PSB012	Planning & Landscape Design 1	21	9
PSB030	Introduction to the Professions	3	1
PSB040	Graphic Communication	6	3
PSB052	The Human Environment 3	6	3
PSB057	Landscape Ecology 1	8	4
PSB071	Site Measurement	4	1

Year 2, Semester 2

PSB013	Planning & Landscape Design 2	20	6
PSB053	The Human Environment 4	4	2
PSB058	Landscape Ecology 2	8	3
PSB059	Population & Urban Studies	6	2
PSB060	Introduction to Economics	2	1
PSB072	Design Science	4	2
PSB073	Computer Techniques	4	2

Year 3, Semester 1

PSB014	Planning & Landscape Design 3	20	6
PSB018	Land Use Generation	4	2
PSB041	Report Preparation	2	1
PSB062	Economics of Town Planning	5	2
PSB074	Land Development	8	3
PSB077	Transport Planning	6	2
PSB190	Elective Unit (Planning) ¹⁹	3	2

Year 3, Semester 2

ARB646	Law of the Built Environment	4	2
PSB015	Planning & Landscape Design 4	20	6

¹⁹ Electives must be approved by the relevant Major Coordinator.

PSB020	Land Use Policies	4	2
PSB021	Conservation Theory	2	1
PSB032	Issues & Ethics	2	1
PSB061	Impacts & Assessment	5	2
PSB063	Housing & Community Services	5	2
PSB078	Urban Land Development	6	2

■ Bachelor of Engineering (Aerospace Avionics) (EE43)

Location: Gardens Point campus

Course Duration: 4 years full-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Associate Professor Farhan Faruqi

Note: Continuing students should refer to their course summary sheets or contact the School of Electrical and Electronic Systems Engineering for enrolment details.

Course Structure (Commencing Students)		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	3
CHB002	Introduction to Engineering Chemistry ²⁰	(2)	(1)
EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics ²¹	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
PHB134	Engineering Physics 1B	8	3
Select one unit from the following:			
MEB181	Engineering Communication	8	4
MEB134	Materials 1	8	3
Year 1, Semester 2			
CSB192	Introduction to Computing	8	3
EEB210	Network Analysis	8	4
EEB270	Digital Design Principles	8	3
MAB188	Engineering Mathematics 1B	8	4
PHB234	Engineering Physics 2B	8	3
Select the unit not undertaken in Semester 1:			
MEB134	Materials 1	8	3
MEB181	Engineering Communication	8	4
Year 2, Semester 1			
EEB375	Electronics 1	8	4
EEB310	Network Synthesis	8	4
EEB362	Introduction to Telecommunications	8	3
EEB390	Engineering Computing 1	8	3
MAB485	Engineering Mathematics 2A	8	3
MEB362	Thermofluids	8	3
Year 2, Semester 2			
EEB476	Electronics 2	8	4
EEB420	Control Systems 1	8	3
EEB475	Microprocessor Systems	8	3

²⁰ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

²¹ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

EEB692	Space Technology	8	3
MAB486	Engineering Mathematics 2B	8	3
MEB454	Aerodynamics 1	8	3
Year 3, Semester 1			
EEB565	Signals & Linear Systems	8	3
EEB582	Aerospace Design 1	8	3
MAB893	Engineering Mathematics 3	8	3
MEB553	Aerodynamics 2	8	3
MEB690	Aircraft Systems	8	3
	Elective Unit 1 (select from List A)	8	3
Year 3, Semester 2			
EEB624	Control Systems 2	8	3
EEB665	Transmission & Propagation	8	3
EEB668	Digital Signal Processing	8	3
EEB683	Aerospace Design 2	8	3
MEB551	Propulsion & Engines	8	3
	Elective Unit 2 (select from List B)	8	3
Year 4, Semester 1			
EEB380	Engineering Management Skills	8	3
EEB682	Engineering Business Skills	8	3
EEB780	Aerospace Design 3	8	3
EEB787/1	Project	8	4
	Elective Unit 3 (select from List C)	8	3
	Elective Unit 4 (select from List C)	8	3
Year 4, Semester 2			
EEB787/2	Aerospace Project	16	6
EEB820	Engineering Management	8	3
EEB821	Production Technology & Quality	8	3
	Elective Unit 5 (select from List D)	8	3
	Elective Unit 6 (select from List D)	8	3
ELECTIVE LISTS			
List A, 'A' Electives			
EEB691	Aeronautical Computing	8	3
EEB564	Information Theory Modulation & Noise	8	3
List B, 'A' Electives			
EEB722	Flight Control Systems	8	3
EEB967	Digital Communications	8	3
EEB974	VLSI Circuits & Systems	8	3
List C, 'A' Electives			
PSB911	Remote Sensing	8	3
EEB662	Microwave & Antenna Technology	8	3
EEB730	Radar & Radio Navigation	8	3
EEB762	Communications Technology	8	3
EEB763	Modern Signal Processing	8	3
EEB971	Applied Electronics	8	3
Select one of the following units:			
MEB790	Spacecraft & Satellite Design	8	3
A third year 'A' Elective not yet attempted			
'B' Elective offered by the divisions (See list below for units offered. These will normally be run if enrolments are sufficient. Only one 'B' elective may be chosen.)			
List D, 'A' Electives			
EEB822	Advanced Control Systems	8	3
EEB891	Signal Computing & Real Time DSP	8	3
EEB892	Advanced Engineering Computing 2	8	3
EEB932	Automatic Flight Control	8	3
EEB933	Combat Systems	8	3
EEB934	Advanced Communications Navigations	8	3

Select one of the following units:

EEB935	Advanced Satellite Systems	8	3
	A third year 'A' Elective not yet attempted 'B' Elective offered by the divisions		

'B' Electives

BNB003	Professional Practice in Asia/Pacific	8	3
EEB761	Statistical Communications	8	3
EEB890	Advanced Information Technology Topics	8	3
EEB956	Photovoltaic Engineering	8	3
EEB962	Microwave Systems Engineering	8	3
EEB969	Signal Filtering & Estimation	8	3
EEB999	Advanced Electrical Engineering Topics	8	3

At the discretion of the Course Coordinator, students may be allowed to select an elective from advanced topics offered by the Faculty of Science, Faculty of Information Technology or other Schools in the Faculty of Built Environment and Engineering.

Also, potential Honours students may, with the approval of the Course Coordinator, select an elective from the postgraduate degree courses offered by the School of Electrical and Electronic Systems Engineering.

■ Bachelor of Engineering (Civil) (CE42)

Location: Gardens Point campus

Course Duration: 4 years full-time, 6 years part-time

Total Credit Points: 384

Standard Credit Points/Full-time Semester: 48

Course Coordinator: Associate Professor David Thambiratnam

Professional Recognition

This degree meets the requirements for membership of the Institution of Engineers, Australia.

Note: The course structure listed below was introduced in 1995. Students who enrolled in the course prior to 1995 should refer to their course summary sheet or contact the School of Civil Engineering for enrolment details.

Environmental Engineering Major

Students may elect to enter the environmental major of the course at the end of Year 1 full-time. This will involve taking, over the length of the course, 96 credit points of alternative core units, prescribed elective units from the main course and some environmental based topics in design units and project. Further information about the Environmental Engineering major is available from the School of Civil Engineering.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1 ²²	8	4
CHB002	Introduction to Engineering Chemistry ²³	(2)	(1)

²² To spread the load on the computer laboratories, students will be allocated to one or other of MEB181 or MEB134.

²³ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 1/2 Chemistry. All other students must apply for an exemption from this unit.

EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics ²⁴	(8)	(3)
MAB187	Engineering Mathematics 1A ²⁵	8	4
PHB134	Engineering Physics 1B	8	3
Select one unit from the following:			
MEB134	Materials 1 ²⁵	8	3
MEB181	Engineering Communication	8	4

Year 1, Semester 2

CEB185	Engineering Mechanics 2 ²⁶	8	4
ESB229	Geology for the Built Environment	8	3
MAB188	Engineering Mathematics 1B	8	4
PSB907	Surveying	8	3
SCB246	Engineering Physics & Chemistry	8	3

Select one unit not undertaken in Semester 1:

MEB134	Materials 1 ²⁵	8	3
MEB181	Engineering Communication	8	4

Students **not** enrolled for the Environmental Major complete these units:

Year 2, Semester 1

CEB221	Engineering Investigation Analysis & Reporting	8	4
CEB240	Soil Mechanics 1 ²⁷	8	3.5
CEB254	Structural Engineering 1	8	3.5
CEB260	Fluid Mechanics	8	3.5
CEB293	Civil Engineering Materials	8	4
MAB487	Engineering Mathematics 2A	8	3

Year 2, Semester 2

CEB201	Steel Structures	8	3.5
CEB202	Concrete Structures 1	8	3.5
CEB211	Highway Engineering	8	4
CEB241	Soil Mechanics 2	8	3
CEB255	Structural Engineering 2	8	3.5
CEB261	Hydraulic Engineering 1	8	3.5

Year 3, Semester 1

CEB304/1	Civil Engineering Design 1	8	4
CEB306	Concrete Structures 2	8	3
CEB309	Construction Practice	8	3.5
CEB362	Hydraulic Engineering 2	8	3
CEB373	Public Health Engineering	8	3.5
MAB893	Engineering Mathematics 3	8	3

Year 3, Semester 2

CEB304/2	Civil Engineering Design 1	8	4
CEB316	Construction Planning & Economics ²⁷	8	3
CEB315	Traffic Engineering	8	3
CEB342	Geotechnical Engineering 1	8	3
CEB356	Structural Engineering 3	8	3
CEB371	Water & Wastewater Systems	8	3

Year 4, Semester 1

CEB402	Professional Practice	8	3
CEB408/1	Civil Engineering Design 2	8	3

²⁴ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

²⁵ To spread the load on the computer laboratories, students will be allocated to one or other of MEB181 or MEB134.

²⁶ Students who have not successfully completed these units may enrol in Summer School units. Details are available from the Course Coordinator.

²⁷ Safety boots must be worn for practical exercises and field trips.

CEB407	Structural Applications	8	3
CEB493/1	Project (Civil)	8	3
	Elective Unit	8	
	Elective Unit	8	
Year 4, Semester 2			
CEB401	Design Project	8	3
CEB408/2	Civil Engineering Design 2	8	3
CEB493/2	Project (Civil)	8	3
	Elective Unit	8	
	Elective Unit	8	
	Elective Unit	8	

Students enrolled for the Environmental Major complete these units:

Year 2, Semester 1

CEB221	Engineering Investigation Analysis & Reporting	8	4
CEB240	Soil Mechanics 1 ²⁸	8	3.5
CEB254	Structural Engineering 1	8	3.5
CEB260	Fluid Mechanics	8	3.5
CEB293	Civil Engineering Materials	8	4
MAB487	Engineering Mathematics 2A	8	3

Year 2, Semester 2

CEB201	Steel Structures	8	3.5
CEB202	Concrete Structures 1 ²⁸	8	3.5
CEB241	Soil Mechanics 2	8	3
CEB255	Structural Engineering 2	8	3.5
CEB261	Hydraulic Engineering 1	8	3.5
CEB270	Environmental Science	8	3

Year 3, Semester 1

CEB304/1	Civil Engineering Design 1	8	3.5
CEB309	Construction Practice	8	3.5
CEB362	Hydraulic Engineering 2	8	3
CEB373	Public Health Engineering	8	3.5
CEB372	Environmental Technology	8	3
MAB893	Engineering Mathematics 3	8	3

Year 3, Semester 2

CEB211	Highway Engineering	8	4
CEB304/2	Civil Engineering Design 1	8	3.5
CEB316	Construction Planning & Economics ²⁸	8	3
CEB315	Traffic Engineering	8	3
CEB371	Water & Wastewater Systems	8	3
CEB543	Environmental Geohydrology	8	3

Year 4, Semester 1

CEB402	Professional Practice	8	3
CEB407	Structural Applications	8	3
CEB475/1	Environmental Engineering Design	8	4
CEB493/1	Project (Civil)	8	3
CEB561	Coastal Engineering	8	3
CEB570	Waste Management	8	3

Year 4, Semester 2

CEB342	Geotechnical Engineering 1	8	3
CEB471	Environmental Design Project	8	3
CEB475/2	Environmental Engineering Design	8	3
CEB493/2	Project (Civil)	8	3
CEB502	Project Control	8	3
CEB575	Environmental Impact Assessment	8	3

²⁸ Safety boots must be worn for practical exercises and field trips.

Part-Time Course Structure

Year 1, Semester 1

BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	4
CHB002	Introduction to Engineering Chemistry ²⁹	(2)	(1)
EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics ³⁰	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
MEB181	Engineering Communication ³¹	8	4

Year 1, Semester 2

CEB185	Engineering Mechanics 2	8	4
ESB229	Geology for the Built Environment	8	3
MAB188	Engineering Mathematics 1B	8	4
MEB133	Materials ³²	8	3

Year 2, Semester 1

CEB254	Structural Engineering 1	8	3.5
CEB293	Civil Engineering Materials	8	4
PHB134	Engineering Physics 1B	8	3

Year 2, Semester 2

CEB202	Concrete Structures 1	8	3.5
CEB255	Structural Engineering 2	8	3.5
PSB907	Surveying	8	3
SEB246	Engineering Physics & Chemistry	8	3

Year 3, Semester 1

CEB221	Engineering Investigation Analysis & Reporting	8	4
CEB240	Soil Mechanics 1 ³²	8	3.5
CEB260	Fluid Mechanics4	8	3.5
MAB487	Engineering Mathematics	8	3

Year 3, Semester 2

CEB201	Steel Structures	8	3.5
CEB211	Highway Engineering	8	4
CEB241	Soil Mechanics 2	8	3
CEB261	Hydraulic Engineering 1	8	3.5

Year 4, Semester 1

CEB306	Concrete Structures 2	8	3
CEB362	Hydraulic Engineering 2	8	3
CEB370	Public Health Engineering	8	3.5
MAB893	Engineering Mathematics 3	8	3

Year 4, Semester 2

CEB305	Construction Planning & Economics ³²	8	3
CEB315	Traffic Engineering	8	3
CEB342	Geotechnical Engineering 1	8	3
CEB371	Water & Wastewater Systems	8	3

Year 5, Semester 1

CEB304/1	Civil Engineering Design 1	8	3.5
CEB309	Construction Practice	8	3.5
CEB402	Professional Practice	8	3
CEB407	Structural Applications	8	3

²⁹ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

³⁰ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

³¹ To spread the load on the computer laboratories, students will be allocated to one or other of MEB181 or MEB134.

³² Safety boots must be worn for practical exercises and field trips.

Year 5, Semester 2

CEB304/2	Civil Engineering Design 1	8	3.5
CEB355	Structural Engineering 3	8	3
	Elective Unit	8	
	Elective Unit	8	

Year 6, Semester 1

CEB408/1	Civil Engineering Design 2	8	4
CEB493/2	Project (Civil)	8	3
	Elective Unit	8	
	Elective Unit	8	

Year 6, Semester 2

CEB401	Design Project	8	3
CEB408/2	Civil Engineering Design 2	8	3
CEB493/2	Project (Civil)	8	3
	Elective Unit	8	

Note: Part-time students who wish to do the Environmental Major must discuss their program with the Course Coordinator.

Elective Units		Credit Points	Contact Hrs/Wk
First Semester			
BNB003	Professional Practice in Asia/Pacific	8	3
CEB501	Civil Engineering Practice 1	8	3
CEB505	Project Management & Administration	8	3
CEB512	Transport Engineering 1	8	3
CEB520	Finite Element Methods	8	3
CEB541	Geotechnical Engineering 2	8	3
CEB561	Coastal Engineering	8	3
Second Semester			
CEB502	Project Control	8	3
CEB503	Advanced Construction Methods	8	3
CEB506	Civil Engineering Practice 2	8	3
CEB511	Transport Engineering 2	8	3
CEB531	Masonry Design	8	3
CEB542	Geotechnical Engineering 3	8	3
CEB543	Environmental Geohydrology	8	3
CEB551	Advanced Structural Design	8	3
CEB560	Hydraulic Engineering 3	8	3
CEB570	Waste Management	8	3
CEB575	Environmental Impact Assessment	8	3

Note:

1. Students' elective programs are subject to approval by the Course Coordinator.
2. Students may choose approved units from Mathematics, Computing or other degrees subject to approval by the Course Coordinator.

■ Bachelor of Engineering (Civil) (CE43) (Mid-year Entry)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3.5 years full-time

Total Credit points: 384

Course Coordinator: Associate Professor David Thambiratnam

Professional Recognition

This degree meets the requirements for membership of the Institution of Engineers, Australia.

Environmental Engineering Major

Students may elect to enter the environmental major of the course at the end of Year 1. This will involve taking, over the length of the course, 96 credit points of alternative core units, prescribed elective units from the main course and some environmental-based topics in design units and project.

Year 1, Semester 2

BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	3
MAB103	Introductory Engineering Mathematics ³³	(8)	(3)
	OR		
MAB187	Engineering Mathematics 1A	8	4
MEB181	Engineering Communication	8	3
PHB134	Engineering Physics 1B	8	3
PSB907	Surveying	8	3
ESB229	Geology in the Built Environment	8	3

Summer School

CEB240	Soil Mechanics 1	8	3.5
CHB002	Introduction to Engineering Chemistry ³⁴	(2)	(1)
MAB188	Engineering Mathematics 1B	8	3

Year 2, Semester 1

MEB134	Materials 1	8	3
CEB221	Engineering Investigation Analysis & Reporting	8	4
CEB254	Structural Engineering 1	8	3.5
CEB260	Fluid Mechanics	8	3.5
CEB293	Civil Engineering Materials	8	4
MAB487	Engineering Mathematics 2A	8	3
EEB101	Circuits & Measurements	8	3

Students NOT enrolled in the environmental major should follow this course structure:

Year 2, Semester 2

CEB201	Steel Structures	8	3.5
CEB202	Concrete Structures 1	8	3.5
CEB241	Soil Mechanics 2	8	3
CEB211	Highway Engineering	8	4
CEB255	Structural Engineering 2	8	3.5
CEB261	Hydraulic Engineering 1	8	3.5
SCB246	Engineering Physics & Chemistry	8	3

Year 3, Semester 1

CEB304/1	Civil Engineering Design 1	8	3.5
CEB306	Concrete Structures 2	8	3
CEB309	Construction Practice	8	3.5
CEB362	Hydraulic Engineering 2	8	3
CEB370	Public Health Engineering 1	8	3.5
MAB893	Engineering Mathematics 3	8	3

Year 3, Semester 2

CEB304/2	Civil Engineering Design 1	8	3.5
CEB305	Construction Planning & Economics	8	2
CEB315	Traffic Engineering	8	3

³³ This unit is to be taken by those students not obtaining a SA or better in Queensland Mathematics C.

³⁴ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

CEB342	Geotechnical Engineering	8	3
CEB357	Structural Engineering 3	8	3
CEB371	Water & Wastewater Systems	8	3

Year 4, Semester 1

CEB402	Professional Practice	8	3
CEB408/1	Civil Engineering Design 2	8	3
CEB407	Structural Applications	8	3
CEB493/1	Project (Civil)	8	3
	Elective Unit	8	3
	Elective Unit	8	3

Year 4, Semester 2

CEB401	Design Project	8	3
CEB408/2	Civil Engineering Design 2	8	3
CEB493/2	Project (Civil)	8	3
	Elective Unit	8	3
	Elective Unit	8	3
	Elective Unit	8	3

Students enrolled for the environmental major complete these units:

Year 2, Semester 2

CEB201	Steel Structures	8	3.5
CEB202	Concrete Structures 1	8	3.5
CEB241	Soil Mechanics 2	8	3
CEB255	Structural Engineering 2	8	3.5
CEB261	Hydraulic Engineering 1	8	3
CEB270	Environmental Science	8	3
SCB246	Engineering Physics & Chemistry	8	3

Year 3, Semester 1

CEB304/1	Civil Engineering Design 1	8	3
CEB309	Construction Practice	8	3
CEB362	Hydraulic Engineering 2	8	3
CEB372	Environmental Technology	8	3
CEB373	Public Health Engineering 1	8	3
MAB893	Engineering Mathematics 3	8	3

Year 3, Semester 2

CEB211	Highway Engineering	8	4
CEB304/2	Civil Engineering Design 1	8	3
CEB316	Construction Planning & Economics	8	2
CEB315	Traffic Engineering	8	3
CEB371	Water & Wastewater Systems	8	3
CEB544	Environmental Geotechnology	8	3

Year 4, Semester 1

CEB402	Professional Practice	8	3
CEB407	Structural Applications	8	3
CEB475/1	Environmental Engineering Design	8	4
CEB493/1	Project (Civil)	8	3
CEB561	Coastal Engineering	8	3
CEB570	Waste Management	8	3

Year 4, Semester 2

CEB342	Geotechnical Engineering 1	8	3
CEB471	Environmental Design Project	8	3
CEB475/2	Environmental Engineering Design	8	4
CEB493/2	Project (Civil)	8	3
CEB502	Project Control	8	3
CEB575	Environmental Impact Assessment	8	3

■ Bachelor of Engineering (Electrical and Computer Engineering) (EE44)

Location: Gardens Point campus

Course Duration: 4 years full-time, 6 years part-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Professional Recognition

This degree meets the requirements for membership of the Institution of Engineers, Australia and of the Institution of Radio and Electronics Engineers.

The alternative award name, Bachelor of Engineering (Electrical), meets the requirements for membership of the Singapore Professional Engineers Board.

Note: Continuing students should refer to their course summary sheets or contact the School of Electrical and Electronic Systems Engineering for enrolment details.

Full-Time Course Structure (Commencing Students)

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics	18	3
CHB002	Introduction to Engineering Chemistry ³⁵	(2)	(1)
EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics ³⁶	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
PHB134	Engineering Physics 1B	8	3
Select one unit from the following:			
MEB181	Engineering Communication	8	4
MEB134	Materials 1	8	3
Year 1, Semester 2			
CSB192	Introduction to Computing	8	3
EEB210	Network Analysis	8	4
EEB270	Digital Design Principles	8	3
MAB188	Engineering Mathematics 1B	8	4
PHB234	Engineering Physics 2B	8	3
Select the unit not undertaken in Semester 1			
MEB134	Materials 1	8	3
MEB181	Engineering Communication	8	4
Year 2, Semester 1			
EEB302	Electrotechnology 1	8	3
EEB310	Network Synthesis	8	4
EEB362	Introduction to Telecommunications	8	3
EEB375	Electronics 1	8	4
EEB390	Engineering Computing 1	8	3
MAB485	Engineering Mathematics 2A	8	3
Year 2, Semester 2			
EEB400	Electrotechnology 2	8	3
EEB420	Control Systems 1	8	3
EEB475	Microprocessor Systems	8	3
EEB476	Electronics 2	8	4
MAB486	Engineering Mathematics 2B	8	3
MEB111	Dynamics	8	3

³⁵ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

³⁶ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C or its equivalent.

Year 3, Semester 1

EEB530	Engineering Electromagnetics	8	3
EEB565	Signals & Linear Systems	8	3
EEB587	Design 1	8	3
EEB593	Software Systems Engineering	8	3
MAB893	Engineering Mathematics 3	8	3
	Elective Unit 1 (select from List A)	8	3

Year 3, Semester 2

EEB624	Control Systems 2	8	3
EEB665	Transmission & Propagation	8	3
EEB668	Digital Signal Processing	8	3
EEB693	Real-time Operating Systems	8	3
EEB788	Design 2	8	3
	Elective Unit 2 (select from List B)	8	3

Year 4, Semester 1

EEB380	Engineering Management Skills	8	3
EEB682	Engineering Business Skills	8	3
EEB885	Design 3	8	3
EEB889/1	Project	8	4
	Elective Unit 3 (select from List C)	8	3
	Elective Unit 4 (select from List C)	8	3

Year 4, Semester 2

EEB820	Engineering Management	8	3
EEB881	Production Technology & Quality	8	3
EEB889/2	Project	16	6
	Elective Unit 5 (select from List D)	8	3
	Elective Unit 6 (select from List D)	8	3

ELECTIVE LISTS**List A, 'A' Electives**

EEB532	Power Systems 1	8	3
EEB564	Information Theory Modulation & Noise	8	3

List B, 'A' Electives

EEB632	Power Systems 2	8	3
EEB667	Digital Communications	8	3
EEB974	VLSI Circuits & Systems	8	3

List C, 'A' Electives

EEB741	Power Systems Analysis	8	3
EEB752	Power Electronics	8	3
EEB762	Communications Technology	8	3
EEB763	Modern Signal Processing	8	3

OR a third year 'A' elective not yet completed
 OR a 'B' elective. (See list below for B elective units.
 These will only be offered if enrolments are sufficient.
 Only one 'B' elective may be chosen.)

EEB765	Microwave & Antenna Technology	8	3
EEB791	Advanced Engineering Computing 1	8	3

List D, 'A' Electives

EEB822	Advanced Control Systems	8	3
EEB842	Power Systems Engineering	8	3
EEB869	Signal Filtering & Estimation	8	3

OR a third year 'A' elective not yet completed
 OR a 'B' elective not yet completed.

EEB871	Applied Electronics	8	3
EEB891	Signal Computing & Real Time DSP	8	3
EEB892	Advanced Engineering Computing 2	8	3

'B' Electives

BNB003	Professional Practice in Asia/Pacific	8	3
EEB910	Photovoltaic Engineering	8	3

EEB923	Industrial Control Systems	8	3
EEB956	Microwave Systems Engineering	8	3
EEB957	High Voltage Equipment	8	3
EEB958	Electrical Energy Utilisation	8	3
EEB959	Power Electronics Applications	8	3
EEB963	Statistical Communications	8	3
EEB990	Advanced Information Technology Topics	8	3
EEB999	Advanced Electrical Engineering Topics	8	3

At the discretion of the Course Coordinator, students may be allowed to select an elective from advanced topics offered by the Faculty of Science, Faculty of Information Technology or other Schools in the Faculty of Built Environment and Engineering.

Also, potential Honours students may, with the approval of the Course Coordinator, select an elective from the postgraduate degree courses offered by the School of Electrical and Electronic Systems Engineering.

Part-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CHB002	Introduction to Engineering Chemistry ³⁷	(2)	(1)
EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics ³⁸	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
PHB134	Engineering Physics 1B	8	3
Year 1, Semester 2			
CSB192	Introduction to Computing	8	3
EEB210	Network Analysis	8	4
MAB188	Engineering Mathematics 1B	8	4
PHB234	Engineering Physics 2B	8	3
Year 2, Semester 1			
EEB310	Network Synthesis	8	4
EEB362	Introduction to Telecommunications	8	3
MAB485	Engineering Mathematics 2A	8	3
MEB134	Materials 1	8	3
Year 2, Semester 2			
EEB270	Digital Design Principles	8	3
MAB486	Engineering Mathematics 2B	8	3
MEB111	Dynamics	8	3
MEB181	Engineering Communication	8	4
Year 3, Semester 1			
CEB184	Engineering Mechanics 1	8	3
EEB302	Electrotechnology 1	8	3
EEB375	Electronics 1	8	4
EEB390	Engineering Computing 1	8	3
Year 3, Semester 2			
EEB400	Electrotechnology 2	8	3
EEB420	Control Systems 1	8	3
EEB475	Microprocessor Systems	8	3
EEB476	Electronics 2	8	4
Year 4, Semester 1			
EEB530	Engineering Electromagnetics	8	3
EEB565	Signals & Linear Systems	8	3

³⁷ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

³⁸ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

EEB593	Software Systems Engineering	8	3
MAB893	Engineering Mathematics 3	8	3
Year 4, Semester 2			
EEB624	Control Systems 2	8	3
EEB665	Transmission & Propagation	8	3
EEB668	Digital Signal Processing	8	3
EEB693	Real-time Operating Systems	8	3
Year 5, Semester 1			
EEB380	Engineering Management Skills	8	3
EEB587	Design 1	8	3
EEB682	Engineering Business Skills	8	3
	Elective Unit 1 (select from List A)	8	3
Year 5, Semester 2			
EEB788	Design 2	8	3
EEB820	Engineering Management	8	3
EEB881	Production Technology & Quality	8	3
	Elective Unit 2 (select from List B)	8	3
Year 6, Semester 1			
EEB885	Design 3	8	3
EEB889/1	Project	8	4
	Elective Unit 3 (select from List C)	8	3
	Elective Unit 4 (select from List C)	8	3
Year 6, Semester 2			
EEB889/2	Project	16	6
	Elective Unit 5 (select from List D)	8	3
	Elective Unit 6 (select from List D)	8	3
ELECTIVE LISTS			
List A, 'A' Electives			
EEB532	Power Systems 1	8	3
EEB564	Information Theory Modulation & Noise	8	3
List B, 'A' Electives			
EEB632	Power Systems 2	8	3
EEB667	Digital Communications	8	3
EEB974	VLSI Circuits & Systems	8	3
List C, 'A' Electives			
EEB741	Power Systems Analysis	8	3
EEB752	Power Electronics	8	3
EEB762	Communications Technology	8	3
EEB763	Modern Signal Processing	8	3
	OR a third year 'A' elective not yet completed		
	OR a 'B' elective. (See list below for B elective units.		
	These will only be offered if enrolments are sufficient.		
	Only one 'B' elective may be chosen.)		
EEB765	Microwave & Antenna Technology	8	3
EEB791	Advanced Engineering Computing 1	8	3
List D, 'A' Electives			
EEB822	Advanced Control Systems	8	3
EEB842	Power Systems Engineering	8	3
EEB869	Signal Filtering & Estimation	8	3
	OR a third year 'A' elective not yet completed		
	OR a 'B' elective not yet completed.		
EEB871	Applied Electronics	8	3
EEB891	Signal Computing & Real Time DSP	8	3
EEB892	Advanced Engineering Computing 2	8	3
'B' Electives			
BNB003	Professional Practice in Asia/Pacific	8	3
EEB910	Photovoltaic Engineering	8	3

EEB923	Industrial Control Systems	8	3
EEB957	High Voltage Equipment	8	3
EEB958	Electrical Energy Utilisation	8	3
EEB959	Power Electronics Applications	8	3
EEB963	Statistical Communications	8	3
EEB965	Microwave Systems Engineering	8	3
EEB990	Advanced Information Technology Topics	8	3
EEB999	Advanced Electrical Engineering Topics	8	3

At the discretion of the Course Coordinator, students may be allowed to select an elective from advanced topics offered by the Faculty of Science, Faculty of Information Technology or other Schools in the Faculty of Built Environment and Engineering.

Also, potential Honours students may, with the approval of the Course Coordinator select an elective from the postgraduate degree courses offered by the School of Electrical and Electronic Systems Engineering.

■ Bachelor of Engineering (Electrical and Computer Engineering) (EE45) (Mid-year Entry)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3.5 years full-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Electrical and Computer Engineering) must obtain at least 60 days of industrial employment/practice in an engineering environment approved by the Course Coordinator.

Candidates must, not later than the fourth week of semester following each period of industrial employment/practice, submit to the Course Coordinator (through the Faculty Office) a report in the required format, describing the work carried out during the period of employment/practice and including an Industrial Experience Record Form signed by the employer. Industrial Experience Records Forms are available from the Faculty Employment Officer in Room ITE1006.

Students should not formally enrol in industrial experience/practice.

Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 2			
BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	3
CSB192	Introduction to Computing	8	3
EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics ³⁹	(8)	(3)
	OR		
MAB187	Engineering Mathematics 1A	8	4
PHB134	Engineering Physics 1B	8	3
PHB234	Engineering Physics 2B	8	3

³⁹ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

Year 1, Summer School

CHB002	Introduction to Engineering Chemistry ⁴⁰	(2)	(1)
EEB210	Network Analysis	8	4
EEB270	Digital Design Principles	8	3
MAB188	Engineering Mathematics 1B	8	4

Year 2, Semester 1

EEB302	Electrotechnology 1	8	3
EEB310	Network Synthesis	8	4
EEB362	Introduction to Telecommunications	8	3
EEB375	Electronics 1	8	4
EEB390	Engineering Computing 1	8	3
MAB485	Engineering Mathematics 2A	8	3

Select one unit from the following:

MEB181	Engineering Communication	8	4
MEB134	Materials 1	8	3

Year 2, Semester 2

EEB400	Electrotechnology 2	8	3
EEB420	Control Systems 1	8	3
EEB475	Microprocessor Systems	8	3
EEB476	Electronics 2	8	4
MAB486	Engineering Mathematics 2B	8	3
MEB111	Dynamics	8	3

Select the unit not undertaken in Semester 1:

MEB134	Materials 1	8	3
MEB181	Engineering Communication	8	4

Year 3, Semester 1

EEB530	Engineering Electromagnetics	8	3
EEB565	Signals & Linear Systems	8	3
EEB587	Design 1	8	3
EEB593	Software Systems Engineering	8	3
MAB893	Engineering Mathematics 3	8	3
	Elective Unit 1 (select from List A)	8	3

Year 3, Semester 2

EEB624	Control Systems 2	8	3
EEB665	Transmission & Propagation	8	3
EEB668	Digital Signal Processing	8	3
EEB693	Real-time Operating Systems	8	3
EEB788	Design 2	8	3
	Elective Unit 2 (select from List B)	8	3

Year 4, Semester 1

EEB380	Engineering Management Skills	8	3
EEB682	Engineering Business Skills	8	3
EEB885	Design 3	8	3
EEB889/1	Project	8	4
	Elective Unit 3 (select from List C)	8	3
	Elective Unit 4 (select from List C)	8	3

Year 4, Semester 2

EEB820	Engineering Management	8	3
EEB881	Production Technology & Quality	8	3
EEB889/2	Project	16	6
	Elective Unit 5 (select from List D)	8	3
	Elective Unit 6 (select from List D)	8	3

ELECTIVE LISTS**List A, 'A' Electives**

EEB532	Power Systems 1	8	3
EEB564	Information Theory Modulation & Noise	8	3

⁴⁰ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

List B, 'A' Electives

EEB632	Power Systems 2	8	3
EEB667	Digital Communications	8	3
EEB974	VLSI Circuits & Systems		

List C, 'A' Electives

EEB741	Power Systems Analysis	8	3
EEB752	Power Electronics	8	3
EEB762	Communications Technology	8	3
EEB763	Modern Signal Processing	8	3
EEB765	Microwave & Antenna Technology	8	3
EEB791	Advanced Engineering Computing 1	8	3
	OR		
	a third year 'A' elective not yet completed		
	OR		
	a 'B' elective (See list below for 'B' elective unit.		
	These will only be offered if enrolments are sufficient.		
	Only one 'B' elective may be chosen.)		

List D, 'A' Electives

EEB822	Advanced Control Systems	8	3
EEB842	Power Systems Engineering	8	3
EEB869	Signal Filtering & Estimation	8	3
	OR		
	a third year 'A' elective not yet completed		
	OR		
	a 'B' elective not yet completed.		
EEB871	Applied Electronics	8	3
EEB891	Signal Computing & Real Time DSP	8	3
EEB892	Advanced Engineering Computing 2	8	3

'B' Electives

BNB003	Professional Practice in Asia/Pacific	8	3
EEB910	Photovoltaic Engineering	8	3
EEB923	Industrial Control Systems	8	3
EEB957	High Voltage Equipment	8	3
EEB958	Electrical Energy Utilisation	8	3
EEB959	Power Electronics Applications	8	3
EEB963	Statistical Communications	8	3
EEB965	Microwave Systems Engineering	8	3
EEB990	Advanced Information Technology Topics	8	3
EEB999	Advanced Electrical Engineering Topics	8	3

At the discretion of the Course Coordinator, students may be allowed to select an elective from advanced topics offered by the Faculty of Science, Faculty of Information Technology or other Schools in the Faculty of Built Environment and Engineering.

Also, potential Honours students may, with the approval of the Course Coordinator select an elective from the postgraduate degree courses offered by the School of Electrical and Electronic Systems Engineering.

■ Bachelor of Engineering (Mechanical) (ME45)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration:

Normal Entry: 4 years full-time, 6 years part-time

Articulation from Bachelor of Technology (ME35): 3 years part-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester:

Normal Entry: 48

Articulation from Bachelor of Technology (ME35): 24/32

Course Coordinator: Mr Jack Laracy

Professional Recognition

This degree is recognised for the purpose of membership of the Institution of Engineers, Australia.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial employment/practice in an engineering environment approved by the Course Coordinator.

Candidates must, not later than the fourth week of semester immediately following each period of industrial experience/practice, submit to the Course Coordinator (through the Faculty Office) a report in the required format, describing the work carried out during the period of experience/practice and including an Industrial Experience Record Form signed by the employer. Industrial Experience Record Forms are available from the Faculty Industrial Experience Officer in Room 602 O Block, Gardens Point campus and also from the Faculty Office.

Students should not formally enrol in industrial experience.

Full-Time Course Structure for Normal Entry

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	3
CHB002	Introduction to Engineering Chemistry ⁴¹	(2)	(1)
EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics ⁴²	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
MEB134	Materials 1	8	3
	OR		
MEB181	Engineering Communication	8	4
PHB134	Engineering Physics 1B	8	3
Year 1, Semester 2			
EEB209	Electrical Engineering 2M	8	3
MAB188	Engineering Mathematics 1B	8	4
MEB111	Dynamics	8	3
MEB213	Mechanics of Solids	8	4
MEB282	Design 1	8	4
MEB134	Materials 1	8	3
	OR		
MEB181	Engineering Communication	8	4
Year 2, Semester 1			
MAB487	Engineering Mathematics 2A	8	3
MEB314	Mechanics 1	8	4
MEB352	Thermodynamics 1	8	4
MEB363	Fluids 1	8	4
MEB381	Design 2	8	3
MEB430	Materials 3	8	4

⁴¹ CHB002 *Introduction to Engineering Chemistry* is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

⁴² MAB103 *Introductory Engineering Mathematics* is to be taken by those students not obtaining a SA or better in Queensland Maths C.

Year 2, Semester 2

MAB488	Engineering Mathematics 2B	8	3
MEB334	Materials 2	8	4
MEB455	Thermodynamics 2	8	4
MEB466	Fluids 2	8	4
MEB473	Manufacturing Engineering 1	8	4
MEB483	Design 3	8	3

Year 3, Semester 1

MAB893	Engineering Mathematics 3	8	3
MEB554	Heat Transfer	8	4
MEB572	Manufacturing Engineering 2	8	4
MEB613	Mechanics 2	8	4
MEB662	Fluid Power	8	4
	Elective Unit (select from List A)	8	3

Year 3, Semester 2

MEB512	Noise & Vibrations	8	4
MEB513	Stress Analysis	8	4
MEB641	Automation 1	8	4
MEB661	Tribology	8	4
MEB672	Total Quality Management	8	3/3
	Elective Unit (select from List B)	8	3/4

Year 4, Semester 1

FNB116	Financial Management for Engineers	8	2
MEB711	Automation 2	8	4
MEB801/1	Project	16	6
MEB912	Finite Element Analysis	8	3
	Elective Unit (select from List C)	8	3

Year 4, Semester 2

HRB111	Industrial Management	6	2
MEB775	Technology Management	8	3
MEB801/2	Project	24	8
	Elective Unit (select from List D)	8	3

Part-Time Course Structure for Normal Entry

Year 1, Semester 1

BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	3
CHB002	Introduction to Engineering Chemistry ⁴³	(2)	(1)
MAB103	Introductory Engineering Mathematics ⁴⁴	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
MEB181	Engineering Communication	8	4

Year 1, Semester 2

MAB188	Engineering Mathematics 1B	8	4
MEB134	Materials 1	8	3
MEB213	Mechanics of Solids	8	4
MEB282	Design 1	8	4

Year 2, Semester 1

EEB101	Circuits & Measurements	8	3
MEB430	Materials 3	8	4
MEB352	Thermodynamics 1	8	4
PHB134	Engineering Physics 1B	8	3

Year 2, Semester 2

EEB209	Electrical Engineering 2M	8	3
MEB111	Dynamics	8	3

⁴³ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

⁴⁴ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

MEB334	Materials 2	8	4
MEB455	Thermodynamics 2	8	4
Year 3, Semester 1			
MAB487	Engineering Mathematics 2A	8	3
MEB314	Mechanics 1	8	4
MEB363	Fluids 1	8	4
MEB381	Design 2	8	3
Year 3, Semester 2			
MAB488	Engineering Mathematics 2B	8	3
MEB466	Fluids 2	8	4
MEB473	Manufacturing Engineering 1	8	4
MEB483	Design 3	8	3
Year 4, Semester 1			
MAB893	Engineering Mathematics 3	8	3
MEB572	Manufacturing Engineering 2	8	4
MEB613	Mechanics 2	8	4
MEB662	Fluid Power	8	4
Year 4, Semester 2			
MEB641	Automation 1	8	4
MEB512	Noise & Vibrations	8	4
MEB513	Stress Analysis	8	4
MEB672	Total Quality Management	8	3
Year 5, Semester 1			
FNB116	Financial Management for Engineers	8	2
MEB554	Heat Transfer	8	4
MEB711	Automation 2	8	4
	Elective Unit (select from List A)	8	3
Year 5, Semester 2			
HRB111	Industrial Management	6	2
MEB661	Tribology	8	4
MEB775	Technology Management	8	3
	Elective Unit (select from List B)	8	3/4
Year 6, Semester 1			
MEB801/1	Project	16	6
MEB912	Finite Element Analysis	8	3
	Elective Unit (select from List C)	8	3
Year 6, Semester 2			
MEB801/2	Project	24	8
	Elective Unit (select from List D)	8	3
ELECTIVE LISTS			
List A			
MEB456	Air Conditioning	8	3
MEB503	Special Topic 1	8	3
MEB532	Advanced Materials	8	3
MEB776	Design for Manufacturing 2	8	3
List B			
MEB602	Special Topic 2	8	3
MEB682	Advanced Mechanical Design	8	3
MEB873	Computer Integrated Manufacturing	8	4
MEB952	Process Plant Design	8	3
List C			
MEB702	Special Topic 3	8	3
MEB777	Operations Management	8	3
MEB951	Energy & Environment	8	3
MEB984	Design of Power Transmission Systems	8	3

List D

BNB003	Professional Practice in Asia/Pacific	8	3
MEB803	Special Topic 4	8	3
MEB811	Industrial Noise & Vibration	8	3
MEB961	Fluid Systems Design	8	3

Part-Time Course Structure for Articulation from Bachelor of Technology (ME35)**Year 1, Semester 1**

MAB487	Engineering Mathematics 2A	8	3
MEB430	Materials 3	8	4
MEB775	Technology Management	8	3

Year 1, Semester 2

MAB488	Engineering Mathematics 2B	8	3
MEB455	Thermodynamics 2	8	4
MEB641	Automation I	8	4

Year 2, Semester 1

MEB554	Heat Transfer	8	4
MEB613	Mechanics 2	8	4
MEB711	Automation 2	8	4
	Elective Unit (select from List C)	8	3

Year 2, Semester 2

MEB466	Fluids 2	8	4
MEB483	Design 3	8	3
MEB513	Stress Analysis	8	4
	Elective Unit (select from List D)	8	3

Year 3, Semester 1

MEB662	Fluid Power	8	4
MEB802/1	Project	16	6
MEB912	Finite Element Analysis	8	3

Year 3, Semester 2

MEB512	Noise & Vibrations	8	4
MEB779	Engineering Project Appraisal	8	3
MEB802/2	Project	16	6

ELECTIVE LISTS**List C**

MEB702	Special Topic 3	8	3
MEB777	Operations Management	8	3
MEB951	Energy & the Environment	8	3
MEB984	Design of Power Transmission Systems	8	3

List D

BNB003	Professional Practice in Asia/Pacific	8	3
MEB803	Special Topic 4	8	3
MEB811	Industrial Noise & Vibrations	8	3
MEB961	Fluid Systems Design	8	3

**■ Bachelor of Engineering (Mechanical) (ME47)
(Mid-year Entry)**

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3.5 years full-time plus Summer School

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Jack Laracy

Professional Recognition

This degree is recognised for the purpose of membership of the Institution of Engineers, Australia.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial employment/practice in an engineering environment approved by the Course Coordinator.

Candidates must, not later than the fourth week of semester immediately following each period of industrial experience/practice, submit to the Course Coordinator (through the Faculty Office), a report in the required format, describing the work carried out during the period of experience/practice and including an Industrial Experience Record Form signed by the employer. Industrial Experience Record Forms are available from the Faculty Industrial Experience Officer in Room 602 O Block, Gardens Point campus and also from the Faculty Office.

Students should not formally enrol in industrial experience.

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	3
MAB103	Introductory Engineering Mathematics ⁴⁵	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
MEB111	Dynamics	8	3
PHB134	Engineering Physics 1B	8	3
MEB134	Materials 1	8	3
MEB181	Engineering Communication	8	4
Year 1, Summer School			
CHB002	Introduction to Engineering Chemistry ⁴⁶	(2)	(1)
MAB188	Engineering Mathematics 1B	8	4
MEB213	Mechanics of Solids	8	4
MEB282	Design 1	8	4
Year 2, Semester 1			
EEB101	Circuits & Measurements	8	3
MAB487	Engineering Mathematics 2A	8	3
MEB314	Mechanics 1	8	4
MEB352	Thermodynamics 1	8	4
MEB363	Fluids 1	8	4
MEB381	Design 2	8	3
MEB430	Materials 3	8	4
Year 2, Semester 2			
EEB209	Electrical Engineering 2M	8	3
MAB488	Engineering Mathematics 2B	8	3
MEB334	Materials 2	8	4
MEB455	Thermodynamics 2	8	4
MEB466	Fluids 2	8	4
MEB473	Manufacturing Engineering 1	8	4
MEB483	Design 3	8	3

⁴⁵ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

⁴⁶ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

Year 3, Semester 1

MAB893	Engineering Mathematics 3	8	3
MEB554	Heat Transfer	8	4
MEB572	Manufacturing Engineering 2	8	4
MEB613	Mechanics 2	8	4
MEB662	Fluid Power	8	4
	Elective Unit (select from List A)	8	3

Year 3, Semester 2

MEB512	Noise & Vibrations	8	4
MEB513	Stress Analysis	8	4
MEB641	Automation 1	8	4
MEB661	Tribology	8	4
MEB672	Total Quality Management	8	3
	Elective Unit (select from List B)	8	3/4

Year 4, Semester 1

FNB116	Financial Management for Engineers	8	2
MEB711	Automation 2	8	4
MEB801/1	Project	16	6
MEB912	Finite Element Analysis	8	3
	Elective Unit (select from List C)	8	3

Year 4, Semester 2

HRB111	Industrial Management	6	2
MEB775	Technology Management	8	3
MEB801/2	Project	24	8
	Elective Unit (select from List D)	8	3

ELECTIVE LISTS

List A

MEB456	Air Conditioning	8	3
MEB503	Special Topic 1	8	3
MEB532	Advanced Materials	8	3
MEB776	Design for Manufacturing 2	8	3

List B

MEB602	Special Topic 2	8	3
MEB682	Advanced Mechanical Design	8	3
MEB873	Computer Integrated Manufacturing	8	4
MEB952	Process Plant Design	8	3

List C

MEB702	Special Topic 3	8	3
MEB777	Operations Management	8	3
MEB951	Energy & Environment	8	3
MEB984	Design of Power Transmission Systems	8	3

List D

BNB003	Professional Practice in Asia/Pacific	8	3
MEB803	Special Topic 4	8	3
MEB811	Industrial Noise & Vibration	8	3
MEB961	Fluid Systems Design	8	3

■ Bachelor of Engineering (Medical) (ME46)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 4 years full-time

Total Credit Points: 396

Course Coordinator: Professor Mark Pearcy

Professional Recognition

Preliminary accreditation for the course has been received from the Institution of Engineers, Australia. Full accreditation will be sought when the course has produced its first graduates. If accreditation is granted, graduates will be professionally recognised to practise as biomedical engineers.

Special Course Requirements

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial employment/practice in an engineering environment approved by the Course Coordinator.

Candidates must, not later than the fourth week of semester immediately following each period of industrial experience/practice, submit to the Course Coordinator (through the Faculty Office) a report in the required format, describing the work carried out during the period of experience/practice and including an Industrial Experience Record Form signed by the employer. Industrial Experience Record Forms are available from the Faculty Industrial Experience Officer in Room 602 O Block, Gardens Point campus and also from the Faculty Office.

Students should not formally enrol in industrial experience.

Course Structure

Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CEB184	Engineering Mechanics 1	8	3
CHB002	Introduction to Engineering Chemistry ⁴⁷	(2)	(1)
CSB192	Introduction to Computing	8	3
EEB101	Circuits & Measurements	8	3
LSB131	Anatomy	12	6
MAB103	Introductory Engineering Mathematics ⁴⁸	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
MEB191	Engineering in the Medical Environment	8	3
Year 1, Semester 2			
CHB003	Engineering Chemistry B	4	3
EEB209	Electrical Engineering 2M	8	3
LSB231	Physiology	12	6
MAB188	Engineering Mathematics 1B	8	4
MEB111	Dynamics	8	3
MEB213	Mechanics of Solids	8	4
PHB134	Engineering Physics 1B	8	3
Year 2, Semester 1			
HMB274	Functional Anatomy	12	4
MAB487	Engineering Mathematics 2A	8	3
MEB181	Engineering Communication	8	4
MEB314	Mechanics 1	8	4
MEB352	Thermodynamics 1	8	4
MEB363	Fluids 1	8	4
MEB134	Materials 1	8	3
Year 2, Semester 2			
CSB491	Unix & C	4	2
HMB362	Biomechanics 2	12	4
MAB488	Engineering Mathematics 2B	8	3

⁴⁷ CHB002 *Introduction to Engineering Chemistry* is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

⁴⁸ MAB103 *Introductory Engineering Mathematics* is to be taken by those students not obtaining a SA or better in Queensland Maths C.

MEB333	Biomaterials	8	3
MEB473	Manufacturing Engineering 1	8	4
MEB484	Bioengineering Design 1	8	3
Year 3, Semester 1			
COB002	Professional Communication	6	3
MAB893	Engineering Mathematics 3	8	3
MEB465	Biofluids	8	3
PHB504	Instrumentation	8	3
	Elective Unit (select from List A)	8	3
Year 3, Semester 2			
EEB375	Electronics 1	8	4
MEB513	Stress Analysis	8	4
MEB580	Bioengineering Design 2	8	3
MEB641	Automation 1	8	4
MEB661	Tribology	8	4
	Elective Unit (select from List B)	8	3
Year 4, Semester 1			
FNB116	Financial Management for Engineers	8	2
MEB490/1	Project	8	3
MEB681	Bioengineering Design 3	8	3
MEB703	Reliability Maintenance Optimisation	8	3
PUB210	Occupational Health & Safety 1	8	4
	Elective Unit (select from List C)	8	3
Year 4, Semester 2			
HRB111	Industrial Management	8	2
MEB490/2	Project	8	3
MEB672	Total Quality Management	8	3
MEB891	Health Legislation in the Medical Environment	8	3
PUB211	Occupational Health & Safety 2	8	4
	Elective Unit (select from List D)	8	3/4
ELECTIVE LISTS			
List A			
HMB614	Biophysical Bases of Movement Rehabilitation	8	3
HMB615	Exercise Physiology	8	3
MEB430	Materials 3	8	4
List B			
HMB616	Psychology of Rehabilitation	8	3
HMB617	Workplace Health	8	3
MEB682	Advanced Mechanical Design	8	3
List C			
HMB610	Clinical Measurement	8	3
HMB611	Human Performance	8	3
MEB572	Manufacturing Engineering 2	8	4
MEB780	Rehabilitation Equipment Design & Evaluation	8	3
List D			
MEB802	Special Topic 4	8	3
MEB741	Maintenance Management & Technology	8	3
MEB892	Robotics in Health Care	8	3

■ Bachelor of Surveying (PS47)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 4 years full-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Professional recognition

This degree meets the educational requirements for registration and licensing by the Surveyors Board of Queensland and also satisfies the academic requirements for admission as a member of both the Institution of Surveyors (Australia) and the Australian Institute of Cartographers.

Special Course Requirements

Students must obtain at least 90 days' industrial experience in a surveying/mapping environment approved by the Course Coordinator.

Students must, not later than the fourth week of the semester immediately following each period of industrial employment/practice, submit to the Course Coordinator a report or diary in the required format, describing the work carried out during the period of employment/practice and including an Industrial Experience Record Form signed by the employer. Industrial Experience Record Forms are available from the School Office or Faculty Industrial Employment Officer in Room 1006, ITE Building, Gardens Point campus. Should employment exceed the minimum required, it is strongly recommended that these details also be recorded in the report or diaries and certified by the employer as a record of experience which may be used when seeking registration or licensing by the Surveyors Board. Students should not formally enrol in industrial experience.

Students may be required to attend field camps off-campus and/or practical sessions in the Moreton region.

Specialisations

There are two specialisations built into the course – Surveying and Mapping. Most units are common to both specialisations. However, in specific semesters, specialised units are to be undertaken in either Surveying or Mapping and these are highlighted in the course structure.

Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CSB192	Introduction to Computing	8	3
MAB103	Introductory Engineering Mathematics ⁴⁹	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
PHB172	Physics for Surveyors	8	3
PSB315	Land Administration 1	6	3
PSB325	Land Surveying 1	8	3
PSB348	Seminar	8	3
Year 1, Semester 2			
ESB229	Geology in the Built Environment	8	3
MAB188	Engineering Mathematics 1B	8	4
PSB054	Environmental Science	4	2
PSB306	Cartography 1	8	3
PSB316	Land Administration 2	8	3
PSB323	Land Studies 1	6	3
PSB326	Land Surveying 2	8	3
Year 2, Semester 1			
MAB494	Survey Mathematics 1	6	3
MAB893	Engineering Mathematics 3	8	3

⁴⁹ MAB103 *Introductory Engineering Mathematics* is to be taken by those students not obtaining a SA or better in Queensland Maths C.

MEB221	Engineering Science 1	6	3
PSB307	Cartography 2	10	3
PSB319	Land Administration 5 ⁵⁰	(6)	(3)
PSB327	Land Surveying 3 ⁵¹	10	3
PSB342	Spatial Information Science 1	8	3
PSB902	Urban Planning 1 ⁵⁰	(4)	(2)

Year 2, Semester 2

CEB364	Engineering Science 2	6	3
MAB496	Survey Mathematics 2	6	3
PSB303	Analysis of Spatial Measurement 1	6	3
PSB308	Cartography 3	8	3
PSB317	Land Administration 3	8	3
PSB328	Land Surveying 4	8	3
PSB334	Photogrammetry 1	6	3

Year 3, Semester 1

MAB795	Survey Mathematics 3	6	3
PSB304	Analysis of Spatial Measurement 2	6	3
PSB309	Cartography 4	8	3
PSB329	Land Surveying 5	8	3
PSB333	Map Projections	6	3
PSB335	Photogrammetry 2	8	3
PSB346	Spheroidal Computations	6	3

Year 3, Semester 2

CEB464	Engineering Science 3	6	3
PSB310	Geodesy 1	6	3
PSB318	Land Administration 4	6	3
PSB320	Land Development Practice 1	8	3
PSB324	Land Studies 2	6	3
PSB330	Land Surveying 6 ⁵¹	8	3
PSB336	Photogrammetry 3	8	3
PSB343	Spatial Information Science 2 ⁵⁰	8	3

Year 4, Semester 1

CEB564	Engineering Science 4	6	3
PSB339/1	Project	8	3
PSB321	Land Development Practice 2	8	3
PSB331	Land Surveying 7	8	3
PSB340	Remote Sensing 1	6	3
PBS344	Spatial Information Science 3	8	3
	Elective Unit	4	

Year 4, Semester 2

PSB322	Land Development Practice 3	16	6
PSB332	Land Surveying 8 ⁵¹	8	3
PSB338	Professional Practice	6	3
PSB339/2	Project	8	3
PSB345	Spatial Information Science 4 ⁵⁰	8	3
	Elective Units	10	

ELECTIVE UNITS

Year 4, Semester 1

CNB367	Real Estate Accounting 1	9	3
CNB465	Property Investment Analysis 1	8	3
CNB565	Time Management	8	3
CNB567	Real Estate Market Analysis	4	2
CNB665	Property Management 1	9	3
PSB018	Land Use Generation	4	2
PSB319	Land Administration 5	6	3

⁵⁰ This unit is to be undertaken by students in the Mapping strand only.

⁵¹ This unit is to be undertaken by students in the Surveying strand only.

PSB021	Conservation Theory	2	1
PSB337	Photogrammetry 4	6	3
PSB902	Urban Planning 1	4	2
Year 4, Semester 2			
CNB362	Property Agency	8	3
CNB368	Real Estate Accounting 2	8	3
CNB568	Real Estate Practice	5	2.5
CNB666	Property Management 2	8	3
PSB020	Land Use Policies	4	2
PSB032	Issues & Ethics	2	1
PSB059	Population & Urban Studies	6	3
PSB061	Impacts & Assessment	5	2
PSB063	Housing & Community Services	5	2
PSB311	Geodesy 2	6	3
PSB341	Remote Sensing 2	8	3
PSB347	Topics in Engineering Surveying	6	3

■ Bachelor of Surveying (PS48) (Mid-year Entry)

See course requirements and notes relating to undergraduate courses.

Location: Gardens Point campus

Course Duration: 3.5 years full-time

Total Credit Points: 384

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Professional Recognition

This degree meets the educational requirements for registration and licensing by the Surveyors Board of Queensland and also satisfies the academic requirements for admission as a member of both the Institution of Surveyors (Australia) and the Australian Institute of Cartographers.

Special Course Requirements

Students must obtain at least 90 days industrial employment/practice in a surveying/mapping environment approved by the Course Coordinator.

Students must, not later than the fourth week of the semester immediately following each period of industrial employment/practice, submit to the Course Coordinator a report or diary in the required format, describing the work carried out during the period of employment/practice and including an Industrial Experience Record Form signed by the employer. Industrial Experience Record Forms are available from the School Office or Faculty Industrial Employment Officer in Room 1006, ITE Building, Gardens Point campus. Should employment exceed the minimum required, it is strongly recommended that these details also be recorded in the report or diaries and certified by the employer as a record of experience which may be used when seeking registration or licensing by the Surveyors Board. Students should not formally enrol in industrial experience.

Students may be required to attend field camps off-campus and/or practical sessions in the Moreton region.

Specialisations

There are two specialisations built into the course – Surveying and Mapping. Most units are common to both specialisations. However, in specific semesters, specialised units are to be undertaken in either Surveying or Mapping and these are highlighted in the course structure.

Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 2			
ESB229	Geology in the Built Environment	8	3
MAB103	Introductory Engineering Mathematics ⁵² OR	8	3
MAB187	Engineering Mathematics 1A	(8)	4
PSB054	Environmental Science	4	2
PSB306	Cartography 1	8	3
PSB316	Land Administration 2	8	3
PSB323	Land Studies 1	6	3
Summer School			
MAB188	Engineering Mathematics 1B	8	4
PSB325	Land Surveying 1	8	3
PSB326	Land Surveying 2	8	3
PSB307	Cartography 2	10	3
Year 2, Semester 1			
CSB192	Introduction to Computing	8	3
MAB494	Survey Mathematics 1	6	3
MAB893	Engineering Mathematics 3	8	3
MEB221	Engineering Science 1	6	3
PHB172	Physics for Surveyors	8	3
PSB315	Land Administration 1	6	3
PSB327	Land Surveying 3	10	3
PSB348	Seminar	8	3
Year 2, Semester 2			
CEB364	Engineering Science 2	6	3
MAB496	Survey Mathematics 2	6	3
PSB303	Analysis of Spatial Measurement 1	6	3
PSB308	Cartography 3	8	3
PSB317	Land Administration 3	8	3
PSB328	Land Surveying 4	8	3
PSB334	Photogrammetry 1	6	3
Year 3, Semester 1			
MA B795	Survey Mathematics 3	6	3
PSB304	Analysis of Spatial Measurement 2	6	3
PSB309	Cartography 4	8	3
PSB329	Land Surveying 5	8	3
PSB333	Map Projections	6	3
PSB335	Photogrammetry 2	8	3
PSB342	Spatial Information Science 1	8	3
PSB346	Spheroidal Computations	6	3
Year 3, Semester 2			
CEB464	Engineering Science 3	6	3
PSB310	Geodesy 1	6	3
PSB318	Land Administration 4	6	3
PSB320	Land Development Practice 1	8	3
PSB324	Land Studies 2	6	3
PSB330	Land Surveying 6 ⁵³	8	3
PSB336	Photogrammetry 3	8	3
PSB343	Spatial Information Science 2 ⁵⁴	8	3
Year 4, Semester 1			
CEB564	Engineering Science 4	6	3
PSB321	Land Development Practice 2	8	3

⁵² MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

⁵³ This unit is to be undertaken by students in the Surveying strand only.

⁵⁴ This unit is to be undertaken by students in the Mapping strand only.

PSB331	Land Surveying 7 ⁵⁵	8	3
PSB339/1	Project	8	3
PSB340	Remote Sensing 1	6	3
PBS344	Spatial Information Science 3	8	3
	Elective Unit	4	

Year 4, Semester 2

PSB322	Land Development Practice 3	16	6
PSB332	Land Surveying 8 ⁵⁵	8	3
PSB338	Professional Practice	6	3
PSB339/2	Project	8	3
PSB345	Spatial Information Science 4 ⁵⁶	8	3
	Elective Units	10	

ELECTIVE UNITS

Year 4, Semester 1

CNB367	Real Estate Accounting 1	9	3
CNB465	Property Investment Analysis 1	8	3
CNB565	Time Management	8	3
CNB567	Real Estate Market Analysis	4	2
CNB665	Property Management 1	9	3
PSB018	Land Use Generation	4	2
PSB021	Conservation Theory	2	1
PSB319	Land Administration 5	6	3
PSB337	Photogrammetry 4	6	3
PSB902	Urban Planning 1	4	2

Year 4, Semester 2

CNB362	Property Agency	8	3
CNB368	Real Estate Accounting 2	8	3
CNB568	Real Estate Practice	5	2.5
CNB666	Property Management 2	8	3
PSB020	Land Use Policies	4	2
PSB032	Issues & Ethics	2	1
PSB059	Population & Urban Studies	6	3
PSB061	Impacts & Assessment	5	2
PSB063	Housing & Community Services	5	2
PSB311	Geodesy 2	6	3
PSB341	Remote Sensing 2	8	3
PSB347	Topics in Engineering Surveying	6	3

■ Bachelor of Technology (Civil) (CE31)

Location: Gardens Point campus

Course Duration:

Normal entry: 3 years full-time

Articulation from Associate Diploma: 3 years part-time

Standard Credit Points/Full-Time Semester:

Normal entry: 48

Articulation from Associate Diploma: 24

Course Coordinator: Dr Frank Bullen

Entry requirements

NORMAL ENTRY

Applicants must have completed Year 12 (or its equivalent) and, in addition, have obtained a minimum grade of Sound Achievement over four semester units in each of Senior English and Mathematics B (Mathematics 1, units 1, 2 and 3).

⁵⁵ This unit is to be undertaken by students in the Surveying strand only.

⁵⁶ This unit is to be undertaken by students in the Mapping strand only.

ARTICULATION FROM ASSOCIATE DIPLOMA

Applicants require an Associate Diploma in Civil Engineering from a university, TAFE college, or equivalent. Holders of Associate Diplomas from places other than QUT must have undertaken certain prerequisite units but may also seek exemptions.

Professional Recognition

Preliminary accreditation has been granted by the Institution of Engineers, Australia (IEAust). Further recognition for the course will be sought in accordance with IEAust regulations once the initial intake of students passes the halfway stage of the course. Full recognition will be obtained from the IEAust when the course produces its first graduates. When full recognition has been gained, graduates will be eligible for affiliate membership of the IEAust, providing them with official recognition as engineering technologists.

Full-Time Course Structure for Normal Entry

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CEB106	Experimental Design & Analysis	8	3
CEB108	Applied Physics	8	4
CEB184	Engineering Mechanics 1	8	3
CHB002	Introduction to Engineering Chemistry	2	1
MAB103	Introductory Engineering Mathematics ⁵⁷	8	3
MEB181	Engineering Communication	8	4
Year 1, Semester 2			
CEB170	Engineering Science	8	3
CEB185	Engineering Mechanics 2	8	3
ESB229	Geology in the Built Environment	8	2
MAB187	Engineering Mathematics 1A	8	4
PHB134	Engineering Physics 1A	8	3
PSB907	Surveying	8	3
Year 2, Semester 1			
CEB240	Soil Mechanics 1	8	3
CEB253	Structural Engineering 1	8	3
CEB293	Civil Engineering Materials	8	3
CEB260	Fluid Mechanics	8	4
MAB185	Introduction to Statistics	8	3.5
MAB188	Engineering Mathematics 1B	8	4
Year 2, Semester 2			
CEB203	CAD for Civil Engineers	8	3
CEB241	Soil Mechanics 2	8	3
CEB270	Environmental Science	8	3
CEB204	Computer Applications	8	3
CEB261	Hydraulic Engineering	8	3.5
CEB211	Highway Engineering	8	4
Year 3, Semester 1			
CEB221	Engineering Investigation, Analysis & Reporting	8	4
CEB307	Construction Practice	8	3.5
CEB224	Advanced Civil Engineering Software	8	3
CEB370	Public Health Engineering	8	3.5
CEB225	Civil Project A	8	4
	Elective Unit	8	3
Year 3, Semester 2			
CEB202	Concrete Structures 1	8	3.5
CEB226	Civil Projects B	8	4

⁵⁷ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

CEB227	Civil Investigation Project	8	4
CEB305	Construction Planning & Economics	8	3
CEB372	Environmental Technology	8	3
	Elective Unit	8	3

Part-Time Course Structure – Articulation from Associate Diploma

Year 1, Semester 1

CEB221	Engineering Investigation, Analysis & Reporting	8	4
CEB294	Engineering Science	8	4
CEB309	Construction Practice ⁵⁸	8	3.5
CHB002	Introduction to Engineering Chemistry ⁵⁹	(2)	(1)
MAB103	Introductory Engineering Mathematics ⁶⁰	(8)	(3)

Year 1, Semester 2

CEB261	Hydraulic Engineering 1	8	3.5
CEB270	Environmental Science	8	3
MAB187	Engineering Mathematics 1A	8	4

Year 2, Semester 1

CEB225	Civil Projects A ⁵⁸	8	4
MAB185	Introduction to Statistics	8	3
MAB188	Engineering Mathematics 1B	8	3

Year 2, Semester 2

CEB202	Concrete Structures 1 ⁵⁸	8	3.5
CEB241	Soil Mechanics 2 ⁵⁸	8	3
CEB372	Environmental Technology	8	3

Year 3, Semester 1

CEB204	Computer Applications	8	3
CEB226	Civil Projects B ⁵⁸	8	4
CEB370	Public Health Engineering	8	3.5

Year 3, Semester 2

CEB227	Civil Investigation Project ⁵⁸	8	4
CEB305	Construction Planning & Economics ⁵⁸	8	3
	Elective Unit	8	

ELECTIVE UNITS

CEB313	Traffic Engineering	8	3
CEB371	Water & Wastewater Systems	8	3
CEB543	Environmental Geotechnolgy	8	3

OR

Any other approved unit from the BE course

Electives

Students' elective programs are subject to approval by the Course Coordinator.

Students may choose approved elective units from civil engineering. Please refer to the Elective Units list for Bachelor of Engineering (Civil) (CE42).

■ Bachelor of Technology (Mechanical) (ME35)

Location: Gardens Point campus

Course Duration:

Normal entry: 3 years part-time

Articulation from Associate Diploma: 3 years part-time

⁵⁸ Safety boots must be worn for practical exercises and field trips.

⁵⁹ MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

⁶⁰ This unit must be taken by students not obtaining at least a SA in Grade 12 Chemistry and Mathematics C.

Standard Credit Points/Full-Time Semester:

Normal entry: 48

Articulation from Associate Diploma: 24/32

Course Coordinator: Dr Andy Tan**Entry Requirements****NORMAL ENTRY**

Applicants must have completed Year 12 or its equivalent and, in addition, have obtained a Sound Achievement or better over four semester units in each of Senior English and Mathematics B.

ARTICULATION FROM ASSOCIATE DIPLOMA

Applicants must hold an Associate Diploma in Mechanical Engineering or a Bachelor of Science in an appropriate discipline, e.g. Materials Science, Physics, or equivalent.

Professional Recognition

The Institution of Engineers, Australia (IEAust) has given the course provisional accreditation. Full recognition will be sought from the IEAust when the course produces its first graduates. When full recognition has been gained, graduates will be eligible for affiliate membership, providing them with official recognition as engineering technologists.

BUILT
ENVIRONMENT
& ENGINEERING

Full-Time Course Structure for Normal Entry

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB004	Technology & Society	8	3
CEB184	Engineering Mechanics 1	8	3
CHB002	Introduction to Engineering Chemistry ⁶¹	(2)	1
EEB101	Circuits & Measurements	8	3
MAB103	Introductory Engineering Mathematics	8	3
PHB001	Introductory Physics	6	3
MEB181	Engineering Communication	8	4
	OR		
MEB134	Materials 1	8	3
Year 1, Semester 2			
MAB187	Engineering Mathematics 1A	8	4
MEB111	Dynamics	8	3
MEB175	Manufacturing Practice 1	8	3
MEB213	Mechanics of Solids	8	4
MEB181	Engineering Communication	8	4
	OR		
MEB134	Materials 1	8	3
PHB134	Engineering Physics 1B	8	3
Year 2, Semester 1			
MAB188	Engineering Mathematics 1B	8	4
MEB275	Manufacturing Practice 2	8	3
MEB314	Mechanics 1	8	4
MEB352	Thermodynamics 1	8	4
MEB363	Fluids 1	8	4
MEB612	Mechanical Measurement	8	3
Year 2, Semester 2			
EEB209	Electrical Engineering 2M	8	3
MAB185	Introduction to Statistics	8	3
MEB282	Design 1	8	4
MEB283	Computer Aided Design & Drafting	8	4

⁶¹ CHB002 Introduction to Engineering Chemistry is to be taken by those students not obtaining a SA in Year 12 Chemistry. All other students must apply for an exemption from this unit.

MEB334	Materials 2	8	4
MEB473	Manufacturing Engineering 1	8	4

Year 3, Semester 1

HRB148	Managing People at Work	8	2
MEB355	Thermofluids	8	3
MEB381	Design 2	8	3
MEB501/1	Project	8	3
MEB572	Manufacturing Engineering 2	8	4
	Elective Unit (select from List A)	8	3

Year 3, Semester 2

HRB149	Human Resources & Industrial Relations	8	2
MEB501/2	Project	8	3
MEB661	Tribology	8	4
MEB672	Total Quality Management	8	3
MEB741	Maintenance Management & Technology	8	3
	Elective Unit (select from List B)	8	3/4

ELECTIVE LISTS

List A

MEB456	Air Conditioning	8	3
MEB503	Special Topic 1	8	3
MEB532	Advanced Materials	8	3
MEB776	Design for Manufacturing 2	8	3

List B

MEB602	Special Topic 2	8	3
MEB682	Advanced Mechanical Design	8	3
MEB873	Computer Integrated Manufacturing	8	4
MEB952	Process Plant Design	8	3

Part-Time Course Structure – Articulation from Associate Diploma

Year 1, Semester 1

MAB103	Introductory Mathematics ⁶²	(8)	(3)
MAB187	Engineering Mathematics 1A	8	4
MEB363	Fluids 1	8	4
MEB612	Mechanical Measurement	8	3

Year 1, Semester 2

MAB188	Engineering Mathematics 1B	8	4
MEB111	Dynamics	8	3
MEB334	Materials 2	8	4

Year 2, Semester 1

MEB314	Mechanics 1	8	4
MEB352	Thermodynamics 1	8	4
MEB381	Design 2	8	3
	Elective Unit (select from List A)	8	3

Year 2, Semester 2

MAB185	Introduction to Statistics	8	3
MEB672	Total Quality Management	8	3
MEB741	Maintenance Management & Technology	8	3
	Elective Unit (select from List B)	8	3

Year 3, Semester 1

HRB148	Managing People at Work	8	2
MEB355	Thermofluids	8	3
MEB501/1	Project	8	3
MEB572	Manufacturing Engineering 2	8	4

⁶² MAB103 Introductory Engineering Mathematics is to be taken by those students not obtaining a SA or better in Queensland Maths C.

Year 3, Semester 2

HRB149	Human Resources & Industrial Relations	8	2
MEB501/2	Project	8	3
MEB661	Tribology	8	4

Elective List

List A

MEB456	Air Conditioning	8	3
MEB503	Special Topic 1	8	3
MEB532	Advanced Materials	8	3
MEB776	Design for Manufacturing 2	8	3

List B

MEB602	Special Topic 2	8	3
MEB682	Advanced Mechanical Design	8	3
MEB873	Computer Integrated Manufacturing	8	4
MEB952	Process Plant Design	8	3

■ Associate Diploma in Civil Engineering (CE21)

See course requirements and notes relating to undergraduate courses.

Course Discontinued: No further intakes. Years 4 is offered to continuing students on a part-time basis only.

Location: Gardens Point campus

Total Credit Points: 192

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: To be advised

Professional Recognition

This course is recognised for associate membership of the Institution of Engineers, Australia, and membership of the Society of Engineering Associates and of the Institute for Drafting and Design, Australia.

Course Requirements/Notes

Generally a full-time student will gain 24 credit points by successfully completing eight practical experience units designated by the suffix 'A' after the unit name, and a part-time student will gain 24 credit points for successfully completing 120 weeks of approved industrial employment, that is, 15 weeks for each of the eight industrial employment units, before being eligible for the Associate Diploma award. However, a combination of practical experience units and industrial employment totalling 24 credit points will be accepted. Industrial employment units 4 to 8 must involve the student in civil engineering work. Forms for obtaining credit for industrial employment are available from the Faculty office.

Course Structure

	Credit Points	Contact Hrs/Wk	
GENERAL MAJOR (GEN)			
Year 4, Semester 1			
CET704	Civil Construction Practice	7	3
	List B1 Elective Unit	7	
	List B2 Elective Unit	7	
Year 4, Semester 2			
	List B1 Elective Unit	7	
	Two List B2 Elective Units	14	

WATER AND WASTEWATER PROCESS OPERATION MAJOR

Year 4, Semester 1

CET606	Construction Management	7	3
CET777	Process Operation & Control 1	7	3
CHA744	Process Measurement & Monitoring 2	7	3

Year 4, Semester 2

CET876	Plant Operation & Maintenance	7	3
CET877	Process Operation & Control 2	7	3
CHA844	Trade Waste Control	7	3

Industrial Employment Units (Part-Time only)

BNT100	Industrial Employment 1	3	15 weeks
BNT200	Industrial Employment 2	3	15 weeks
BNT300	Industrial Employment 3	3	15 weeks
BNT400	Industrial Employment 4	3	15 weeks
BNT500	Industrial Employment 5	3	15 weeks
BNT600	Industrial Employment 6	3	15 weeks
BNT700	Industrial Employment 7	3	15 weeks
BNT800	Industrial Employment 8	3	15 weeks

List B1 Elective Units

FIRST SEMESTER

CET606	Construction Management (Evening)	7	3
CET655	Concrete & Steel Design (Day)	7	3
CET887	Computer Aided Drafting (Evening)	7	3
EST219	Engineering Geology	7	3

SECOND SEMESTER

CET655	Concrete & Steel Design (Evening)	7	3
CET787	Structural Engineering Drawing (Day)	7	3
CET887	Computer Aided Drafting (Day & Evening)	7	3
HRX111	Safety & Industrial Relations (Evening)	7	2

List B2 Elective Units

FIRST SEMESTER

CET703	Civil Engineering Practice 1	7	3
CET707	Municipal Engineering (Evening)	7	3
CET735	Advanced Laboratory Testing 1 ⁶³	7	3
CET797	Project 1 ⁶³	7	3
CHA145	Introductory Chemistry (Evening)	8	3
EST219	Engineering Geology	7	3
MET140	Engineering Materials 1	8	3

SECOND SEMESTER

CET420	Civil Systems 2	7	3
CET797	Project 1 ⁶³	7	3
CET802	Civil Engineering Practice 2	7	3
CET838	Advanced Laboratory Testing 2	7	3
CET856	Advanced Construction Techniques	7	3
CET888	Structural Drawing & Design (Day)	7	3

Up to 21 credit points from other modes or strands of this course or from other QUT courses may be approved by the Course Coordinator as alternatives to the listed elective units. The number of elective units available depends on a sufficient number of students being enrolled.

Degree level units may be selected as electives with the approval of the Course Coordinator.

Students not following the normal course progression as listed must contact the Course Coordinator for re-enrolment advice.

⁶³ Safety boots must be worn for practical exercises and field trips.