FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Courses

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. In order to maintain orderly progression through a course, a prerequisite requirement **may** be waived if a student has attempted but not passed the prerequisite and the approval of the Course Coordinator has been obtained. 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 the units CEP998 Project B and CEP999 Project A 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 if required.

■ Master of Applied Science (Research) (BN71)

Location: Gardens Point campus

Introduction

The objectives of the program are:

- to provide for postgraduate educational opportunities in the specialised fields of applied science relating to the built environment, 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 graduates employed in industry to undertake further education by thesis and research

- to enable industrial organisations and other external agencies to sponsor a candidate research program under the control and supervision of the faculty
- to further relationships between the University and industry or other external agencies engaged in applied science, to their mutual advantage.

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 procedure relating to research degrees is exercised through a Research Management Committee which is a subcommittee of Academic Committee.

1.3 Research Management Committee has delegated responsibility for day to day administration of research master degree courses to faculty academic boards. Academic boards shall report biannually to Research Management Committee on progress made by research master 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, Construction Management, Industrial Design, Interior Design, Landscape Architecture, Planning, and Surveying.

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

- have completed the approved course of study 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 before the offer of admission to the program lapses. Candidates are required to complete an enrolment form each semester.

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

- possession of an honours degree, or
- possession of a qualification judged equivalent by the Faculty Research Committee, or

- a grade point average of 5.0 or better in a graduate diploma in a relevant discipline 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 master degree program in a relevant discipline with demonstrated potential for further study and/or evidence of professional standing.

An applicant for the Master of Applied Science (Research) 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:

(i) three years professional experience in the general field in which the proposed work lies, or

(ii) satisfactory completion of an appropriate master's qualifying program including formal coursework and/or reading program in related fields stipulated by the Faculty Research Committee, or

(iii) 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 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 initially as:

- a graduate student (provisional) if they are to undertake an appropriate qualifying program, or
- a graduate student if they are considered by the Faculty Research Committee to meet the requirements for entry.

A graduate student (provisional) becomes a graduate student when registration is confirmed. Applicants not holding an appropriate honours degree or its equivalent shall normally be given provisional registration.

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 the Faculty Research Committee, or
- have been accepted for provisional registration in the faculty and have achieved, by subsequent work and study, a standard recognised by the Faculty Research Committee
- have satisfied the Faculty Research Committee that they are a suitable person to undertake the program
- have satisfied the 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, and
- the proposed program has relevance to the needs of industry.

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 of research and investigation, 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 the Head of School and/or Director of Centre

any other relevant material.

2.9 The program is offered on a full-time and/or a part-time basis. Part-time students normally will be employed in some professional capacity during the day and carry out their research 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 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 internal or external. An external candidate is one whose program of research and investigation is based at a place of employment or sponsoring institution. Normally, support of the sponsoring institution for the candidate's application is required for registration.

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) shall undertake a program of research and investigation on a topic approved by the Faculty Research Committee.

3.2 All research activity should be sponsored 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 the research be primarily directed towards 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 qualifying 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 will normally 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 and investigation.

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	10 credit points
Normal coursework expectation	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

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

Units accessible by formal graded assessment	24 credit points max
Maximum units assessed by satisfactory/ unsatisfactory or merit by student	24 credit points max

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

Specific tailor-made reading courses supervised by supervising panel or individual member of staff	24 credit points max

Students must contact their Course Coordinator to finalise their program.

4. Period of Time for Completion of Course Study

4.1 The duration of study for candidates with four years of relevant study at tertiary level will normally be up to two years of full-time study or the part-time equivalent.

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 but not more than four years has elapsed 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 first day of the first semester in which the candidate was enrolled 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 from the program 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, 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.

6. Place and Conditions of Work

6.1 The research program must normally be carried out under supervision in a suitable environment in Australia.

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 School and/or Director of Centre in which

the study is proposed that, in his or her opinion, the applicant is a suitable person to undertake a research program leading to the master 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 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 master 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.*

7.2 Not later than six months after confirmed registration, a candidate shall submit the title of his or her thesis for approval by the Faculty Research Committee, and after approval has been granted, no change shall be made except with the permission of the committee.

7.3 The candidate shall give two months written notice of intention to submit his or her 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 master 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 of reports, plans and/or documents or may be supported by these if they have a bearing on the thesis. Other supporting documents such as published papers may also be submitted with the thesis, and
- 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 Research Management 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 examiners, of whom at least one shall be from outside 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 on 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:

(i) recommend that the thesis be accepted without modification, and to the Academic Committee that the candidate be awarded the degree, or

(ii) recommend to the Academic Committee that the candidate be awarded the degree, after any minor amendments requested by the examiners have been made, or

(iii) 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

(iv) 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)

CITY AND REGIONAL PLANNING MAJOR

Major Discontinued: This Major has been discontinued and there will be no further intakes.

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: Dr John Minnery

Entry Requirements

Applicants for admission should:

(i) hold a Graduate Diploma in Urban and Regional Planning from QUT, or

(ii) hold a professional planning degree or diploma from a recognised university, or approved equivalent tertiary institution, and

(iii) have attained a level of achievement in previous studies which attests to the applicant's ability to undertake successfully a masters program in the field of City and Regional Planning.

Part-Time Course Structure – Continuing Students		**Credit Points**	**Contact Hrs/Wk**
Year 2, Semester 1			
PSN001	Applied Research Techniques	6	2
PSN112	Concentration Studies	12	2.5
PSN113	Option Projects	12	2
Year 2, Semester 2			
PSN121	Planning Project	24	1

PROJECT MANAGEMENT MAJOR

Major Discontinued: This major has been discontinued and has been replaced by the Master of Project Management (CN77). There will be no further intakes into this course.

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

Total Credit Points: 144

Standard Credit Points/Full-Time Semester: 48

Coordinator for Project Management Major: Dr Keith Hampson

PROJECT MANAGEMENT SPECIALISATION

Full-Time Course Structure – Continuing Students		**Credit Points**	**Contact Hrs/Wk**
Year 2, Semester 1			
CNN441	Dissertation	48	4
Part-Time Course Structure – Continuing Students			
Year 3, Semester 1			
CNN442/1	Dissertation	24	2
Year 3, Semester 2			
CNN442/2	Dissertation	24	2

PROPERTY DEVELOPMENT SPECIALISATION

Full-Time Course Structure – Continuing Students			
Year 2, Semester 1			
CNN441	Dissertation	48	4
Part-Time Course Structure – Continuing Students			
Year 3, Semester 1			
CNN442/1	Dissertation	24	2
Year 3, Semester 2			
CNN442/2	Dissertation	24	2

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: Mr Danny O'Hare

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.

Relevant professional activity normally means the areas of architecture, planning and landscape architecture.

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
PSP405	Urban Design Field Studies	4	10 days
PSP421	History of Urban Systems	4	1
PSP424	Urban Design Theory & Criticism	4	1
Plus a selection from the following totalling at least 4 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

Plus a selection of the following totalling a minimum of 12 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		

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

PSN004	Applied Research Techniques	4	1
PSP402	Urban Design Context Studio	12	3
PSP405	Urban Design Field Studies	4	10 days

Plus a selection from the following totalling at least 4 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

Plus a selection of the following totalling a minimum of 12 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

■ Master of Engineering (BN72)

Location: Gardens Point campus

Introduction

The objectives of the program are:

- to provide for postgraduate educational opportunities in design, investigation, development, research or any combination thereof, 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 further relationships between the University and industry or other external agencies involved in 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 the Academic Committee.

1.3 The 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 the 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 Civil, Electrical and Electronic Systems, and Mechanical and Manufacturing Engineering.

1.5 In order to qualify for the award of the degree of 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 Engineering before the offer of admission to the program lapses. Candidates are required to complete an enrolment form each semester.

2.4 Normal admission will require the candidate to have at least an Honours 2A degree in a bachelor degree in Engineering from the Queensland University of Technology or a qualification judged equivalent by the Faculty Research Committee.

Entry to the program may be allowed to candidates without an Honours 2A degree if the candidate has a grade point average of 5.0 or better in the coursework component of a masters degree program or a graduate diploma program in a relevant discipline, together with demonstrated potential for further study and/or evidence of professional standing.

An applicant for the 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:

(i) three years professional experience in the general field in which the proposed work lies, or

(ii) satisfactory completion of an appropriate master's qualifying program including formal coursework and/or reading program in related fields stipulated by the Faculty Research Committee, or

(iii) the submission of technical publications or other appropriate evidence which satisfies the Faculty Research Committee that advanced knowledge has been acquired in a division of engineering in which the applicant has worked as a professional engineer in a position of responsibility; this knowledge should be relevant to the field of study proposed.

2.5 A candidate shall be registered initially as:

- a graduate student (provisional) if they are to undertake an appropriate qualifying program, or
- a graduate student if they are considered by Faculty Research Committee to meet the requirements for entry.

A graduate student (provisional) becomes a graduate student when registration is confirmed. Applicants not holding an appropriate honours degree or its equivalent shall normally be given provisional registration.

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 the Faculty Research Committee, or
- have been accepted for provisional registration in the faculty and have achieved, by subsequent work and study, a standard recognised by the Faculty Research Committee
- have satisfied the Faculty Research Committee that they are a suitable person to undertake the program
- 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, and
- the proposed program has relevance to the needs of industry.

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 the Head of School and/or Director of Centre, and
- any other relevant material.

2.9 The program is offered on a full-time and/or a part-time basis. Part-time students normally will be employed in some professional engineering 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 projects 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 internal or external. An external candidate is one whose program of research is based at a place of employment or sponsoring institution. Normally, support of the sponsoring institution for the candidate's application is required for registration.

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 Engineering will undertake necessary project work in design, investigation and research and/or development work on a topic approved by the Faculty Research Committee.

3.2 All projects should be sponsored 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 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 engineering area.

3.4 Where advised, a candidate may be required to complete satisfactorily a qualifying program of formal coursework in units 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 and investigation.

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	10 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

(b) Components determined by School and/or

Research Centre or Concentration – Core or elective:

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

Students must contact their Course Coordinator to finalise their program.

4. Period of Time for Completion of Course Study

4.1 The duration of study for candidates with four years of relevant study at tertiary level will normally be up to two years of full-time study or the part-time equivalent.

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 but not more than four years has elapsed

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

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 first day of the first semester in which the candidate was enrolled 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 must normally be carried out under supervision in a suitable environment in Australia.

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 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 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.*

7.2 Not later than six months after confirmed registration, a candidate shall submit the title of their thesis for approval by the Faculty Research Committee, 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, and
- 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 Research Management 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 on 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:

(i) recommend that the thesis be accepted without modification, and to the Academic Committee that the candidate be awarded the degree, or

(ii) recommend to the Academic Committee that the candidate be awarded the degree, after any minor amendments requested by the examiners have been made, or

(iii) 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

(iv) 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 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: Mr Robin Black

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:			
Option 1			
CEP999/1/2	Project A[2]	36	9
	Units chosen from major totalling	12	
Option 2			
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
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[3]	odd, 2	8	2
CEP361	Drainage Engineering	odd, 2	8	2

[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 two, in conjunction with a Bachelor of Engineering elective unit.*

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

Choose remaining units from the following:

CEP310	Urban Transportation Planning	even, 2	8	2
CEP361	Drainage Engineering	odd, 2	8	2
	Units from any other major			

Master of Engineering Science (Computer and Communication Engineering) (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 in the stream they wish to pursue, provided they have the necessary background from undergraduate units.

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, may be permitted to follow the first semester of the Graduate Diploma in Computer Engineering. If in this first semester a GPA of 5.0 or above is attained, candidates will be allowed to convert 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 requirements for Graduate Diploma in Computer Engineering with a GPA of 5.0 or above may upgrade to the Masters program 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	3
EEP302	Research Component 1 (Computer Engineering Stream)	12	3

Method of Assessment

Assessment is undertaken in six coursework units and two research units. Coursework units in the Computer Engineering Stream are common with the Graduate Diploma in Computer Engineering. Coursework units in the Communication Engineering Stream are specialised for that stream. Candidates for Master of Engineering Science are required to maintain a GPA of 5.0 or above in coursework units to qualify for the degree. One of the research units comprises an additional research training component associated with each coursework unit. The other research unit comprises a research project, undertaken individually by students.

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 and Computer Vision	12	3
EEP137	Advanced Topic A	12	3
Year 1, Semester 2			
EEP104	Real-time Operating Systems	12	3
EEP301	Project	12	3
EEP302	Research Component 1	12	3
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 and Computer Vision	12	3

Year 2, Semester 2

EEP301	Project	12	3
EEP302	Research Component 1	12	3

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	

Year 1, Semester 2

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

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	

Year 2, Semester 2

EEP301	Project	12	3
EEP303	Research Component 2	12	3

Advanced Topics A & B Unit 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:

Adaptive Filtering & Array Processing
Digital Spectral Analysis
Stochastic Processes
Parallel and Supercomputing
Advanced Engineering Software Tools
Process Control and Robotics
Computer Hardware and Interfacing
OR
Core units of other stream
Mathematics Elective Units

Students are to consult the Course Coordinator regarding the selection of an appropriate mathematics unit prior to enrolling.

■ Master of Engineering Science in 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 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 units 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[4]	12	3
EEP231	Thesis B[4]	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[4]	12	3
	3 Units (selected from List 1)	12	3
Year 2, Semester 2			
EEP231	Thesis B[4]	12	3
	3 Units (selected from List 1)	12	3

List 1: Units Semester 1		Weeks	Credit Points	Contact Hrs/Wk
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
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
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

[4] *Students must complete 100 days of supervised professional practice. The thesis is related to this industry experience.*

EEP219	High Voltage Substation Equipment, Power Transformers & Reactive Power Plant	11-15	4	3
Semester 2				
EEP207	Overhead Transmission Line Route Selection	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
EEP212	Advanced Power System Protection	6-10	4	3
EEP214	Risk Assessment in the Electricity Supply Industry	6-10	4	3
EEP216	Transmission Line Design-Electrical	6-10	4	3
EEP223	Load Forecasting	6-10	4	3
EEP217	Transmission 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

Units being offered for Distance Education (anticipated availability early 1995)[5]:

		Credit Points
EEP201	Fundamentals of Power System Earthing	4
EEP202	Thermal Ratings and Heat Transfer	4
EEP204	Power System Load Flow Analysis	4
EEP205	Power System Fault Calculation	4
EEP206	Project Management	4
EEP207	Overhead Transmission Line Route Selection	4
EEP208	Economic Analysis for Power System Engineers	4
EEP209	Power System Harmonics	4
EEP210	Abnormal System Voltages	4
EEP213	Statistics	4
EEP214	Risk Management in the Electricity Supply Industry	4
EEP215	Reliability	4
EEP218	Introduction to Automated System Control & Supervisory Systems	4

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

Location: Gardens Point campus

Course Duration: 1 year full-time, 2 years part-time, 2 years part-time (block release)

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Professor Nick Hastings

Entry Requirements

(i) a bachelor's degree in Engineering (or its equivalent) with honours, or

(ii) a bachelor's degree in Engineering (or its equivalent), together with a relevant graduate diploma or qualifying program with a grade point average of 5.0 or better, or

(iii) a bachelor's degree in Engineering (or its equivalent), together with at least three

[5] *Subject to University approval.*

years' industrial experience, and potential demonstrated through professional activity to undertake a masters degree course.

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. Students taking the block release option will need to be available for two intensive periods (one week and two weeks) per year for two years. The periods will normally be held in the mid-semester break in semester 1 and in the second and third weeks of the break between semesters 1 and 2.

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	Reliability and Maintenance Optimisation	12	3
MEN171	Advanced Manufacturing Technologies	12	3
Semester 2			
FNN113	Managerial Accounting for Engineers	12	3
MEN170	Systems Modelling and Simulation	12	3
Select two units from the following:			
MEN190/2	Project[6]	12	3
MEN240	Maintenance Management and 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 and Simulation	12	3
Year 2, Semester 1			
Select two units from the following:			
MEN140	Reliability and Maintenance Optimisation	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 and Technology	12	3
MEN270	Manufacturing Resource Planning	12	3
MEN190/2	Project[6]	12	3

Block Release (Part-Time) Course Structure

Year 1, Semester 1 (April block)			
HRN113	Management for Engineers	12	3
Year 1, Semester 2 (June-July block)			
FNN113	Managerial Accounting for Engineers	12	3
MEN280	Engineering Project Management	12	3

[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. Students taking the course by block release are normally expected to take MEN190.*

Year 2, Semester 1 (April block)

MEN190/1	Project[6]	12	3
Select one unit from the following:			
MEN140	Reliability & Maintenance Optimisation	12	3
MEN171	Advanced Manufacturing Technologies	12	3

Year 2, Semester 2 (June-July block)

MEN190/2	Project[6]	12	3
MEN170	Systems Modelling and Simulation	12	3
Select one unit from the following:			
MEN240	Maintenance Management and Technology	12	3
MEN270	Manufacturing Resource Planning	12	3

■ Master of Project Management (CN77)

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: Dr Keith Hampson Steve Kajewski

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) a 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 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.

The Graduate Diploma in Project Management has majors in Project Management and

[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. Students taking the course by block release are normally expected to take MEN190.*

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. 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.

PROJECT MANAGEMENT MAJOR

Full-Time Course Structure

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

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

Year 3, Semester 2

CNN442/2	Dissertation	24	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

Year 2, Semester 1

CNN441	Dissertation	48	

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
Year 3, Semester 2			
CNN442/2	Dissertation	24	2
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 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: Mr Paul Wilson

Entry Requirements

Applicants must hold a Bachelor's 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	Process Control & Robotics	12	3

Year 2, Semester 2

EEP120	Network & Distributed Computing	12	3
EEP123	Process Control & Robotics	12	3

■ 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

Course Coordinator: Mr David Birtwhistle

Entry Requirements

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

Full-Time Course Structure	Credit Points
Year 1, Semester 1	
12 Units (selected from List 1)	48
Year 1, Semester 2	
12 Units (selected from List 1)	48

Part-Time Course Structure

Year 1, Semester 1	
6 Units (selected from List 1)	24
Year 1, Semester 2	
6 Units (selected from List 1)	24
Year 2, Semester 1	
6 Units (selected from List 1)	24
Year 2, Semester 2	
6 Units (selected from List 1)	24

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
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
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

Semester 2

EEP207	Overhead Transmission Line Route Selection	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
EEP212	Advanced Power System Protection	6-10	4	3
EEP214	Risk Assessment in the Electricity Supply Industry	6-10	4	3
EEP216	Transmission Line Design – Electrical	6-10	4	3
EEP223	Load Forecasting	6-10	4	3
EEP217	Transmission 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

Units being offered for Distance Education (anticipated availability early 1995)[5]:

		Credit Points
EEP201	Fundamentals of Power SystemEarthing	4
EEP202	Thermal Ratings and Heat Transfer	4
EEP204	Power System Load Flow Analysis	4
EEP205	Power System Fault Calculation	4
EEP206	Project Management	4
EEP207	Overhead Transmission Line Route Selection	4
EEP208	Economic Analysis for Power System Engineers	4
EEP209	Power System Harmonics	4
EEP210	Abnormal System Voltages	4
EEP213	Statistics	4
EEP214	Risk Assessment in the Electricity Supply Industry	4
EEP215	Reliability	4
EEP218	Introduction to Automated System Control & Supervisory Systems	4

■ 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.

[5] *Subject to University approval.*

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Semester 1			
ARP613	Advanced Ergonomics 1	6	2
ARP642	Case Studies	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 & 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			
ARP642	Case Studies	6	2
ARP674	Industrial Design Research 1	18	8
Year 2, Semester 2			
ARP654	Professional Practice & Management	6	2
ARP675	Industrial Design Research 2	18	8

■ 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: Mr Peter Hedley

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 is currently being accredited by the Design Institute of Australia.

Full-Time Course Structure		Credit Points	Contact Hrs/wk
Semester 1			
ARP502	Advanced Interior Design 1	18	7
ARP506	Brief Development	8	2

ARP507	Professional Practice for Interior Designers	12	4
ARP601	Setting the Scene	10	3

Semester 2

ARP503	Advanced Interior Design 2	18	6
ARP604	Conservation of Historic Interiors	14	6
ARP605	Building Evaluation	8	2
ARP606	Elective Unit	8	2

Part-Time Course Structure

Year 1, Semester 1

ARP502	Advanced Interior Design 1	18	7
ARP506	Brief Development	8	2

Year 1, Semester 2

ARP503	Advanced Interior Design 2	18	6
ARP605	Building Evaluation	8	2

Year 2, Semester 1

ARP507	Professional Practice for Interior Designers	12	4
ARP601	Setting the Scene	10	3

Year 2, Semester 2

ARP604	Conservation of Historic Interiors	14	6
ARP606	Elective Unit	8	2

Elective Units

All electives undertaken must have the 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: Mr George Williams

Entry Requirements

To be eligible for normal admission, an applicant must:

(i) hold a degree or diploma from a recognised tertiary institution, or

(ii) 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			
PSP011	Conservation Theory	3	1
PSP210	History of Landscape Design	3	2
PSP212	User & Character Design Studies	12	6
PSP220	Introduction to Practice 1	6	3
PSP230	Landscape Ecology 1	6	4
PSP240	Landscape Graphics 1	6	3
PSP250	Map & Air Photo Interpretation	3	1
PSP251	Landscape Construction 1	9	4
Year 1, Semester 2			
PSP019	Planting Design	3	1
PSP213	Site Planning	12	4
PSP221	Introduction to Practice 2	6	3
PSP232	Landscape Ecology 2	9	3
PSP233	Impacts & Assessment	3	2
PSP241	Landscape Graphics 2	6	2
PSP252	Landscape Construction 2	9	3
Year 2, Semester 1			
PSP214	Residential Landscape Design	12	3
PSP215	Urban Landscape Design	12	3
PSP222	Landscape Practice 1	6	2
PSP234	Landscape Management A	6	4
PSP242	Advanced Landscape Graphics	6	2
PSP253	Advanced Landscape Construction 1	6	3
Year 2, Semester 2			
PSP216	Landscape Planning	12	4
PSP217	Landscape Design	18	5
PSP223	Landscape Practice 2	3	2
PSP235	Landscape Management B	6	4
PSP254	Advanced Landscape Construction 2	6	3
PSP260	School Field Trip	3	7-10 days

Part-Time Course Structure			
Year 1, Semester 1			
PSP210	History of Landscape Design	3	2
PSP220	Introduction to Practice 1	6	3
PSP230	Landscape Ecology 1	6	4
PSP240	Landscape Graphics 1	6	3
PSP250	Map & Air Photo Interpretation	3	1
Year 1, Semester 2			
PSB019	Planting Design	3	1
PSP221	Introduction to Practice 2	6	3
PSP232	Landscape Ecology 2	9	3
PSP241	Landscape Graphics 2	6	2
Year 2, Semester 1			
PSP011	Conservation Theory	3	1
PSP212	User & Character Design Studies	12	6
PSP251	Landscape Construction 1	9	4
Year 2, Semester 2			
PSP213	Site Planning	12	4
PSP233	Impacts & Assessment	3	2
PSP252	Landscape Construction 2	9	3
Year 3, Semester 1			
PSP214	Residential Landscape Design	12	3
PSP242	Advanced Landscape Graphics	6	2
PSP253	Advanced Landscape Construction 1	6	3

Year 3, Semester 2			
PSP216	Landscape Planning	12	4
PSP235	Landscape Management B	6	4
PSP254	Advanced Landscape Construction 2	6	3
Year 4, Semester 1			
PSP215	Urban Landscape Design	12	3
PSP222	Landscape Practice 1	6	2
PSP234	Landscape Management A	6	4
Year 4, Semester 2			
PSP217	Landscape Design	18	5
PSP223	Landscape Practice 2	3	2
PSP260	School Field Trip	3	7-10 days

■ 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: Mr Robin Black

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...".

Course Structure – All Majors		**Credit Points**	**Contact Hrs/Wk**
Year 1, Semester 1			
CEP128	Municipal Engineering Planning (offered even years)[7]	12	3
CEP131	Engineering Management & Administration	12	3

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

Year 1, Semester 2

CEP200	Process Modelling	8	2
CEP361	Drainage Engineering (offered odd years)[7]	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	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
CEP290	Environmental Law & Assessment[3]	odd, 2	8	2
CHP691	Environmental Chemistry	even, 2	8	2
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.[8]

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.[8]

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.[8]

■ Graduate Diploma in Project Management (CN64)

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

[3] *CEP290 Environmental Law and Assessment may be offered in even years, semester two, in conjunction with a Bachelor of Engineering elective unit.*

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

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

Course Coordinator: Dr Keith Hampson

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.

All units shown are compulsory core 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.

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 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: Associate Professor Brian Hannigan

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.

It is desirable though not essential that applicants for admission have at least one year of practical experience in the practice of surveying following graduation.

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 (PS67)

Location: Gardens Point campus

Course Duration: 2 years full-time, 3.5 years part-time

Total Credit Points: 192

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Dr Brian Hudson

Entry Requirements

To be eligible for admission, an applicant must:

(i) hold a degree or diploma from a recognised tertiary institution, or

(ii) have attained professional recognition by an equivalent course of study or examination.

Applicants who do not meet these requirements for entry but who, because of other qualifications or relevant experience, can demonstrate that they are capable of meeting the requirements of the course, may be considered for special entry. Special entry applicants are normally required to pass an entrance examination and undertake approved courses before being allowed to enter this course.

Notes

Graduates of the QUT Bachelor of Built Environment (Urban and Regional Planning) shall be credited with all the units listed in the full-time program for Year 1 (Semesters 1 and 2). Students from other backgrounds may be granted credit on application as appropriate to their education and experience.

Students who do not have basic graphics skills are required to attend a QUT graphics workshop/summer school before being permitted to enter the Graduate Diploma in Urban and Regional Planning program. Students must demonstrate competency in environmental studies prior to undertaking PSB001 Environmental Impacts.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
COP115	Professional Communication	4	2
PSP003	Economics of Town Planning	6	2
PSP077	Transport Planning	6	2
PSP110	Site Planning Practice & Law	12	4
PSP112	Site Planning Methods	4	1
PSP113	Theory of Site Planning	4	1
PSP114	Introduction to Maps & Air Photos	4	1
PSP115	Planning Processes	8	2
Year 1, Semester 2			
ISB183	Introduction to Computers in Planning	4	1
PSP001	Environmental Impacts	6	2
PSP002	History of Planning	4	1
PSP059	Population & Urban Studies	6	2
PSP063	Housing & Community Services	6	2

PSP078	Urban Land Development	6	2
PSP120	Urban Design Practice	12	3
PSP126	Urban Design Methods	4	1

Year 2, Semester 1

PSP130	Planning Practice & Law (Urban)	12	4
PSP133	Rural Land Use & Planning	4	1
PSP134	Theories for Planning	12	3
PSP136	Regional Planning Methods	6	2
PSP137	Resource Management	8	2
PSP138	Computer Applications in Planning	6	2

Year 2, Semester 2

PSP060	School Field Trip	4	7-10 days
PSP140	Planning Practice & Law (Regional & Strategic)	12	4
PSP144	Urban Policy Implementation	4	1
PSP145	Social Planning	4	1
PSP146	Procedural Planning Theory	4	1
PSP147	Professional Procedures & Ethics	4	1
PSP150	Research Methods & Individual Project	16	2

Part-Time Course Structure

Year 1, Semester 1

COP115	Professional Communication	4	2
PSP110	Site Planning Practice & Law	12	4
PSP112	Site Planning Methods	4	1
PSP113	Theory of Site Planning	4	1
PSP115	Planning Processes	8	2

Year 1, Semester 2

ISB183	Introduction to Computers in Planning	4	1
PSP002	History of Planning	4	1
PSP059	Population & Urban Studies	6	2
PSP120	Urban Design Practice	12	3
PSP126	Urban Design Methods	4	1

Year 2, Semester 1

PSP003	Economics of Town Planning	6	2
PSP114	Introduction to Maps & Air Photos	4	1
PSP134	Theories for Planning	12	3
PSP138	Computer Applications in Planning	6	2

Year 2, Semester 2

PSP001	Environmental Impacts	6	2
PSP060	School Field Trip	4	7-10 days
PSP063	Housing & Community Services	6	2
PSP078	Urban Land Development	6	2
PSP145	Social Planning	4	1
PSP146	Procedural Planning Theory	4	1

Year 3, Semester 1

PSP077	Transport Planning	6	2
PSP130	Planning Practice & Law (Urban)	12	4
PSP133	Rural Land Use & Planning	4	1
PSP136	Regional Planning Methods	6	2

Year 3, Semester 2

PSP140	Planning Practice & Law (Regional & Strategic)	12	4
PSP144	Urban Policy Implementation	4	1
PSP147	Professional Procedures & Ethics	4	1
PSP150	Research Methods & Individual Project[9]		

[9] *Students attend classes but do not enrol in this semester. Individual Project is prepared and submitted in the next semester.*

Year 4, Semester 1			
PSP137	Resource Management	8	2
PSP150	Research Methods & Individual Project	16	2

■ Graduate Diploma in Urban Design (PS69)

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

Total Credit Points: 96

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Danny O'Hare

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.

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
PSP405	Urban Design Field Studies	4	10 days
PSP421	History of Urban Systems	4	1
PSP424	Urban Design Theory & Criticism	4	1
Plus any of the following totalling at least 4 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
Semester 2			
PSP402	Urban Design Context Studio	12	3
Plus any of the following totalling at least 36 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		

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			
PSN004	Applied Research Techniques	4	1
PSP402	Urban Design Context Studio	12	3
PSP405	Urban Design Field Studies	4	10 days
Plus any of the following totalling at least 4 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
Plus any of the following totalling a minimum of 12 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			
Any of the following totalling at least 24 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		

■ Graduate Certificate in Architectural Practice (AR80)

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): $50 per credit point

Course Coordinator: Mr Jim Stewart

Entry Requirements

An applicant must:

(i) hold a professional degree or professional diploma in architecture from a recognised University, or approved equivalent tertiary institution, or

(ii) have gained professional recognition in architecture or an allied profession by an equivalent course of study or examination.

Where an equivalent course of study or examination cannot be readily established an applicant, at the discretion of the Head of School, may be recommended for special entry.

This type of entry may depend collectively on such factors as the applicant's qualifications, background, experience and current employment.

Course Structure		Credit Points	Contact Hrs/Wk
Semester 1			
ARP151	Architectural Practice	12	2
ARP153	Legal Studies in Architecture	12	2
Semester 2			
ARP152	Architectural Administration	12	2
ARP154	Architectural Cost Planning	12	2

Note: Each unit has a one-day workshop of six hours duration. Smaller modules of the course may be taken as non-award Continuing Education. Contact the Office of Continuing Education for further information.

■ Graduate Certificate in Electricity Supply Engineering (EE82)

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): $142 per credit point

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
Semester 1	
12 Units (from List 1)	48

Part-Time Course Structure

Semester 1	
6 Units (from List 1)	24
Semester 2	
6 Units (from List 1)	24

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
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 Systems Voltages	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
Semester 2				
EEP207	Overhead Transmission Line Route Selection	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
EEP214	Risk Assessment in the Electricity Supply Industry	6-10	4	3
EEP212	Advanced Power System Protection	6-10	4	3
EEP216	Transmission Line Design-Electrical	6-10	4	3
EEP223	Load Forecasting	6-10	4	3
EEP217	Transmission 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

Units being offered for Distance Education (anticipated availability early 1995)[5]

		Credit Points
EEP201	Fundamentals of Power System Earthing	4
EEP202	Thermal Ratings and Heat Transfer	4
EEP204	Power System Load Flow Analysis	4
EEP205	Power System Fault Calculation	4
EEP206	Project Management	4
EEP207	Overhead Transmission Line Route Selection	4
EEP208	Economic Analysis for Power System Engineers	4
EEP209	Power System Harmonics	4
EEP210	Abnormal System Voltages	4
EEP213	Statistics	4
EEP214	Risk Assessment in the Electricity Supply Industry	4
EEP215	Reliability	4
EEP218	Introduction to Automated System Control & Supervisory Systems	4

■ Graduate Certificate in Engineering Management (ME75)

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: Mr George O'Sachy

Entry Requirements

(i) a Bachelor's 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

[5] *Subject to 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	Reliability and Maintenance Optimisation	12	3
MEN170	Systems Modelling and Simulation	12	3
MEN171	Advanced Manufacturing Technologies	12	3
MEN240	Maintenance Management and 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

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): $70 per credit point

Course Coordinator: Dr Keith Hampson

Entry Requirements

NORMAL ENTRY

An applicant must:

(i) hold a relevant 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 specialisations in Project Management or Property Development, after the successful completion of one 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.

CONSTRUCTION MANAGEMENT SPECIALISATION

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

		Credit Points	Contact Hrs/Wk
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) in advanced units in CN31 may also be undertaken with the prior approval of the Course Coordinator.

PROJECT MANAGEMENT SPECIALISATION

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 SPECIALISATION

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 SPECIALISATION

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 specialisation 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.

□ 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. In order to maintain orderly progression through a course, a prerequisite requirement **may** be waived, if a student has attempted but not passed the prerequisite and the approval of the Course Coordinator has been obtained. 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).

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 if 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 and also from the Faculty Office.

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 as part of the 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 five 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 3 years (Approved Employment A), and for at least 72 recognised weeks within the second 3 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 8 recognised weeks continuous duration cannot be accredited.
- **Recognised Week**
  A 'recognised week' is a week of 5 days work. During semester, when students normally work for 4 days per week, the 18 week semester (14 weeks in class and 4 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 3 day working week constitutes 3/5 of a recognised week. A 6 day working week constitutes 6/5 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.
- **Pre-requisite**
  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 2 Years**
  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 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% of time in undertaking design and/or documentation.

  (b) Approved Employment B –

  (i) 50% 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)[10]

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 Co-ordinator: Mr Gary Thomas

Special Course Requirement

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

[10] *See course requirements and notes relating to undergraduate courses.*

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

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/Part-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CNB111	Construction 1	8	4
CNB113	Building Technology 1	8	4
CNB115	Graphics	6	2
CNB117	Professional Studies A	6	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	3
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
CNB214	Building Contracts/Arbitration Law	6	3
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
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
CNB321	Torts & Property Law	6	2
CNB323	Estimating 2	6	2
CNB325	Building Economics	6	2
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

Part-Time Course Structure

Year 1, Semester 1

CNB111	Construction 1	8	4
CNB113	Building Technology 1	8	4
CNB115	Graphics	6	2
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

CNB117	Professional Studies A	6	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
PSB910	Construction Surveying	8	4

Year 4, Semester 1

CNB217	Building Services 2	6	3
CNB219	Economics of the Construction Industry	6	2
CNB321	Torts & Property Law	6	2
CNB323	Estimating 2	6	2

Year 4, Semester 2

CNB214	Building Contracts/Arbitration Law	6	3
CNB220	Construction Management 1	6	2
CNB316	Valuations & Investment Theory	6	3
CNB322	Construction Management Case Study	6	3

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)[10]

Course discontinued: No further intakes. This course has been replaced by the Bachelor of Applied Science (Construction Management)(CN41). Years 2 to 4 are offered to continuing students only.

Location: Gardens Point campus

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

Total Credit Points: 287

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Gary Thomas

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.

[10] *See course requirements and notes relating to undergraduate courses.*

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 5pm and 9.30pm.

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.

Full-Time/Part-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 2, Semester 1			
CNB013	Building Services 1 – HVAC	4	2
CNB245	Measurement of Construction 1B	6	3
CNB247	Material Science 3	4	2
CNB253	Construction 3	10	5
CNB259	Structures 3	4	2
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
CNB601	Formwork Design & Construction	4	2
Year 2, Semester 2			
CNB014	Building Services 2 – Electrical	4	2
CNB243	Law 1 – Building Acts & Regulations	5	2
CNB246	Measurement of Construction 2B	8	4
CNB254	Construction 4	12	6
CNB404	Building Management 2	4	2
CNB405	Project Equipment & Safety	4	2
CNB440/2	Law 3 – Building Contracts	3	1
CNB442/2	Valuation & Dilapidations	2	1
CNB446	Estimating 1	5	2.5
Year 3, Semester 1			
CNB341	Building & Civil Engineering Construction	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
Select one unit from the following:			
CNB444	Mechanical & Electrical Estimating	4	2
	Elective Unit	4	
Year 3, Semester 2			
CNB301	PM1 – Advanced Construction Methods	4	2
CNB502	Building Management 4	4	2
CNB543	Law 4 – Torts & Arbitrations	3	1.5
CNB548	PM4 – Construction Planning Techniques 2	8	4
CNB550	PM5 – Project Cost Control	6	3
Year 4, Semester 1			
CNB603	Building Management 5	4	2
CNB623	PM6 – Building Development Techniques 1	4	2
CNB642	Applied Computer Techniques	6	3
CNB656/1	Building Research	8	4
Select one unit from the following:			
CEB701	Civil Engineering Quantities 1	4	2
	Elective Unit	4	

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
CNB656/2	Building Research	10	5

Select one unit from the following:

CNB643	Law 5 – Commercial Law	3	1.5
	Elective Unit	3	

Part-Time Course Structure

Year 2, Semester 1

CNB005	Measurement of Construction 1	6	3
CNB247	Material Science 3	4	2
CNB253	Construction 3	10	5
CNB259	Structures 3	4	2
ISB180	Computer Applications	4	2

Year 2, Semester 2

CNB006	Measurement of Construction 2	6	3
CNB243	Law 1 – Building Acts & Regulations	5	2
CNB254	Construction 4	12	6

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
PSB904	Surveying & Measuring	4	2
SSB908	Behavioural Science	6	3

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
CNB601	Formwork Design & Construction	4	2

Select one unit from the following:

CNB444	Mechanical & Electrical Estimating	4	2
	Elective Unit	4	

Year 4, Semester 2

CNB301	PM1 – Advanced Construction Methods	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

Select one unit from the following:

CNB343	Economics of the Construction Industry	4	2
	Elective Unit	4	

Year 5, Semester 1

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

Select one unit from the following:

CEB701	Civil Engineering Quantities 1	4	2
	Elective Unit	4	

Year 5, Semester 2

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

Year 6, Semester 1

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

Year 6, Semester 2

CNB606	PM8 – Land Development Studies	4	2
CNB624	PM7 – Building Development Techniques 2	4	2
CNB656/2	Building Research	10	5

Select one unit from the following:

CNB643	Law 5 – Commercial Law	3	1.5
	Elective Unit	3	

Elective Units

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

■ Bachelor of Applied Science (Property Economics) (CN32)[10]

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: Mr George Earl

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 11 hours per week and comprises a half-day release from employment with the remaining time spread over two or three nights between 5pm and 9.30pm.

[10] *See course requirements and notes relating to undergraduate courses.*

Full-Time Course Structure

		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB001	Learning at University	2	1.5
CNB161	Building Studies 1	14	5.5
CNB263	Valuation 1	7	3
CNB342	Law 2 – Principles & Property	3	1.5
COB163	Professional Writing	6	1.5
MAB298	Mathematics & Statistics	4	2
PSB060	Introduction to Economics	2	1
PSB902	Urban Planning 1	4	2
SSB908	Behavioural Science	6	3
Year 1, Semester 2			
CNB162	Building Studies 2	9	3.5
CNB166	Urban Economics	4	2
CNB268	Valuation 2	8	3
CNB362	Property Agency	8	3
CNB565	Land Management	8	3
CNB643	Law 5 – Commercial Law	3	1.5
ISB180	Computer Applications	4	2
PSB903	Urban Planning 2	4	2
Year 2, Semester 1			
CNB261	Building Studies 3	9	3
CNB363	Valuation 3	9	3
CNB367	Real Estate Accounting 1	9	3
CNB471	Property Practice Law	8	2.5
CNB665	Property Management 1	9	3
PSB904	Surveying & Measuring	4	2
Year 2, Semester 2			
CNB262	Building Studies 4	8	3
CNB364	Valuation 4	8	3
CNB368	Real Estate Accounting 2	8	3
CNB567	Real Estate Market Analysis	4	2
CNB626	Land Development Studies	4	2
CNB666	Property Management 2	8	3
CNB667	Applied Computer Techniques	8	3
Year 3, Semester 1			
CNB464	Valuation 5 – Rural	8	3
CNB465	Property Investment Analysis 1	8	3
CNB561	Property Maintenance	8	3
CNB563	Statutory Valuation	8	3
CNB568	Real Estate Practice	5	2.5
CNB661	Research Dissertation 1	8	4
CNB663	Property Development 1	5	2
Year 3, Semester 2			
CNB466	Property Investment Analysis 2	8	3
CNB470	Valuation 6 – Rural	8	3
CNB472	Property Taxation Issues	8	2
CNB564	Valuation 7	8	3
CNB662	Research Dissertation 2	8	4
CNB664	Property Development 2	6	2

Part-Time Course Structure

Year 1, Semester 1			
BNB001	Learning at University	2	1.5
CNB161	Building Studies 1	14	5.5
MAB298	Mathematics & Statistics	4	2
PSB060	Introduction to Economics	2	1

Year 1, Semester 2

CNB162	Building Studies 2	9	3.5
CNB166	Urban Economics	4	2
CNB565	Land Management	8	3
ISB180	Computer Applications	4	2

Year 2, Semester 1

CNB261	Building Studies 3	9	3
CNB263	Valuation 1	7	3
CNB342	Law 2 – Principles & Property	3	1.5
COB163	Professional Writing	6	1.5

Year 2, Semester 2

CNB262	Building Studies 4	8	3
CNB268	Valuation 2	8	3
CNB362	Property Agency	8	3
CNB626	Land Development Studies	4	2

Year 3, Semester 1

CNB363	Valuation 3	9	3
CNB367	Real Estate Accounting 1	9	3
PSB902	Urban Planning 1	4	2

Year 3, Semester 2

CNB364	Valuation 4	8	3
CNB368	Real Estate Accounting 2	8	3
CNB643	Law 5 – Commercial Law	3	1.5
PSB903	Urban Planning 2	4	2

Year 4, Semester 1

CNB464	Valuation 5 – Rural	8	3
CNB465	Property Investment Analysis 1	8	3
SSB908	Behavioural Science	6	3
PSB904	Surveying & Measuring	4	2

Year 4, Semester 2

CNB466	Property Investment Analysis 2	8	3
CNB470	Valuation 6 – Rural	8	3
CNB472	Property Taxation Issues	8	2

Year 5, Semester 1

CNB561	Property Maintenance	8	3
CNB563	Statutory Valuation	8	3
CNB568	Real Estate Practice	5	2.5

Year 5, Semester 2

CNB564	Valuation 7	8	3
CNB567	Real Estate Market Analysis	4	2
CNB667	Applied Computer Techniques	8	3

Year 6, Semester 1

CNB471	Property Practice Law	8	2.5
CNB661	Research Dissertation 1	8	4
CNB663	Property Development 1	5	2
CNB665	Property Management 1	9	3

Year 6, Semester 2

CNB662	Research Dissertation 2	8	4
CNB664	Property Development 2	6	2
CNB666	Property Management 2	8	3

■ Bachelor of Applied Science (Quantity Surveying) (CN43)[10]

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 Requirement

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

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/Part-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CNB111	Construction 1	8	4
CNB113	Building Technology 1	8	4
CNB115	Graphics	6	2
CNB117	Professional Studies A	6	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	3
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
CNB214	Building Contracts/Arbitration Law	6	3

[10] *See course requirements and notes relating to undergraduate courses.*

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

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
CNB321	Torts & Property Law	6	2
CNB323	Estimating 2	6	2
CNB327	Building Economics 1	6	2

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	3
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

CNB111	Construction 1	8	4
CNB113	Building Technology 1	8	4
CNB115	Graphics	6	2
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

CNB117	Professional Studies A	6	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
PSB910	Construction Surveying	8	4

Year 4, Semester 1

CNB217	Building Services 2	6	3
CNB219	Economics of the Construction Industry	6	2
CNB319	Professional Management	6	3
CNB321	Torts & Property Law	6	2
CNB323	Estimating 2	6	2

Year 4, Semester 2

CNB214	Building Contracts/Arbitration Law	6	3
CNB220	Construction Management 1	6	2
CNB312	Measurement 4	9	4
CNB316	Valuations & Investment Theory	6	3

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 that 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)[10]

Course discontinued: No further intakes. This course has been replaced by the Bachelor of Applied Science (Quantity Surveying) (CN43). Years 2 to 4 are offered to continuing students only.

Location: Gardens Point campus

[10] *See course requirements and notes relating to undergraduate courses.*

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

Total Credit Points: 286

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 11-12 hours per week and comprises a half-day release from employment with the remaining time spread over two or three nights between 5pm and 9.30pm.

For the first four years of the part-time course, a whole day releaseform 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.

Full-Time/Part-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 2, Semester 1			
CNB013	Building Services 1 – HVAC	4	2
CNB245	Measurement of Construction 1B	6	3
CNB247	Material Science 3	4	2
CNB253	Construction 3	10	5
CNB259	Structures 3	4	2
CNB403	Building Management 1	4	2
CNB440/1	Law 3 – Building Contracts	3	1
CNB443	Building Services 3	5	2.5
CNB527	PM2 – Quantitative Techniques	3	1.5
Year 2, Semester 2			
CNB014	Building Services 2 – Electrical	4	2
CNB243	Law 1 – Building Acts & Regulations	5	2
CNB246	Measurement of Construction 2B	8	4
CNB254	Construction 4	12	6
CNB404	Building Management 2	4	2
CNB440/2	Law 3 – Building Contracts	3	1
CNB446	Estimating 1	5	2.5
CNB543	Law 4 – Torts & Arbitrations	3	1.5
Select one of the following units:			
CNB643	Law 5 – Commercial Law	3	1.5
	Elective Unit	3	
Year 3, Semester 1			
CNB341	Building & Civil Engineering Construction	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
Select one of the following units:			
CNB444	Mechanical & Electrical Estimating	4	2
	Elective Unit	4	

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

CEB701	Civil Engineering Quantities 1	4	2
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 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

Part-Time Course Structure

Year 2, Semester 1

CNB005	Measurement of Construction 1	6	3
CNB247	Material Science 3	4	2
CNB253	Construction 3	10	5
CNB259	Structures 3	4	2
ISB180	Computer Applications	4	2

Year 2, Semester 2

CNB006	Measurement of Construction 2	6	3
CNB243	Law 1 – Building Acts & Regulations	5	2
CNB254	Construction 4	12	6

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
CNB347	Hygiene & Sanitation	4	2
CNB442/2	Valuation & Dilapidations	2	1
CNB520	Specifications	3	1.5
Select one unit from the following:			
CNB343	Economics of the Construction Industry	4	2
	Elective Unit	4	

Year 4, Semester 1

CEB701	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

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

Select one of the following units:

CNB444	Mechanical & Electrical Estimating	4	2
	Elective Unit	4	

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 & Arbitrations	3	1.5
CNB552	Office Management	2	1

Select one of the following units:

CNB643	Law 5 – Commercial Law	3	1.5
	Elective Unit	3	

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

Elective units may be taken form any other course offered by the University in consultation with the Course Coordinator.

■ Bachelor of Applied Science (Surveying) (SV34)[10]

Course Discontinued: This course has been replaced by the Bachelor of Surveying (PS47). There will be no intakes. Year 3 is offered to continuing students only.

Location: Gardens Point campus

Course Duration: 3 years full-time

Total Credit Points: 290

Standard Credit Points/Full-Time Semester: 48

[10] *See course requirements and notes relating to undergraduate courses.*

Course Coordinator: Associate Professor Brian Hannigan

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 of industrial employment/practice in a surveying environment approved by the Course Coordinator.

Students must, not later than the fourth week of 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 the 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 employment/practice.

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

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
SURVEYING MAJOR			
Year 3, Semester 1			
SVB443	Photogrammetry 2	11	6
SVB470	Land Administration 2	4	2
SVB535	Land Surveying 5	5	3
SVB551	Land Valuation	6	3
SVB561	Land Development Practice 1	10	6
SVB563	Land Information Systems 2	4	2
SVB571	Cadastre	4	2
SVB683/1	Project	4	1
Year 3, Semester 2			
SVB636	Land Surveying 6	6	3
SVB639	Observations & Adjustments 3	4	2
SVB640	Geodesy	6	3
SVB664	Land Development Practice 2	10	6
SVB680	Professional Practice	6	3
SVB682	Seminar 2	2	1
SVB683/2	Project	4	1
	Two Elective Units	10	
CARTOGRAPHY MAJOR			
Year 3, Semester 1			
SVB443	Photogrammetry 2	11	6
SVB470	Land Administration 2	4	2
SVB561	Land Development Practice 1	10	6
SVB563	Land Information Systems 2	4	2
SVB571	Cadastre	4	2
SVB685/1	Project	8	4

Year 3, Semester 2

SVB639	Observations & Adjustments 3	4	2
SVB664	Land Development Practice 2	10	6
SVB680	Professional Practice	6	3
SVB682	Seminar 2	2	1
SVB685/2	Project	8	4
	Two Elective Units	10	

Elective Units

CEB504	Engineering Science 3	5	3
SVB634	Topics in Engineering Surveying	5	3
SVB643	Photogrammetry 3	5	3
SVB645	Remote Sensing	5	3
SVB670	Land Administration 5	5	3
SVB684	Map Production Planning	5	3
SVB694	Geodesy 2	5	3

■ Bachelor of Architecture (AR48)[10]

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 3 years (Approved Employment A) and for at least 72 recognised weeks within the second 3 years (Approved Employment B). For details refer to the Section "Course Requirements and Notes relating to Undergraduate Courses" on page 261.

Segmented Course Units

Where course units contain discrete segments identified in the synopsis:

1. Students are generally expected to pass all segments in order to pass the course unit.
2. Where one segment only is failed, and the percentage attained in that segment is not less than 45%, the final grade for the course will be aggregated for results in all segments.
3. Where more than one segment is failed, or where one segment is failed at a percentage lower than 45%, a fail result will be given for the course unit.
4. In these cases the student must enrol in the course unit in the following year, but will only be required to repeat the failed segment or segments.

   The final grade for the unit will be aggregated from new passing results in segments repeated together with original results in segments passed previously.

[10] *See course requirements and notes relating to undergraduate courses.*

5. Segments required to be repeated will take precedence over new units if timetable clashes occur.
6. Students in transition from AR41 or old AR48 to new structure AR48 and who have failed a unit which is now a segment of a larger unit, will be required to repeat the old unit.
7. Where students are exempted from segments of a unit due to previous study outside of AR41 or AR48. They must enrol in the unit but will not be required to undertake the exempted segments.

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

Part-time 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	3
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		
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		

Bachelor of Architecture (AR41)

Course Discontinued: No further intakes. This course has been replaced by the Bachelor of Architecture (AR48). Years 3 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

(i) Except as provided in (ii) below, 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.

(ii) A student who is admitted with advanced standing and who is granted exemption from all units in the first three years of the course may be granted exemption from the unit ARB791 Approved Employment 1.

Part-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 3, Semester 1			
ARB389	Design Science 3	4	2
ARB391	Building Services 1	4	1.5
ARB393	Design 5	8	4
ARB395	Building Construction 3	3	1.5

ARB544	Landscape Architecture in the Built Environment	2	1
CEB559	Principles of Structures 3	3	2
Year 3, Semester 2			
ARB388	Design Science 4	2	1
ARB392	Building Services 2	3	1.5
ARB394	Design 6	8	4
ARB396	Building Construction 4	3	1.5
ARB646	Law of the Built Environment	4	2
CEB659	Principles of Structures 4	4	2
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)[10]

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

Location: Gardens Point campus

Course Duration: 3 years full-time

Total Credit Points: 288

Standard Credit Points/Full-Time Semester: 48

[10] *See course requirements and notes relating to undergraduate courses.*

Majors Coordinators:
Architectural Studies: Mr Dan Nutter
Industrial Design: Associate Professor Vesna Popovic
Interior Design: Mr Peter Hedley
Landscape Architecture: Ms Delwynn Poulton
Urban and Regional Planning: Ms Janelle Allison

Professional Recognition

ARCHITECTURAL STUDIES MAJOR
The Bachelor of Built Environment (Architectural Studies) must be completed before 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 course. 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 in Urban and Regional Planning, which is fully accredited by the Royal Australian Planning Institute.

Full-Time 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	3
ARB026	Technology & Science 6	12	5
ARB044	Elective 4	6	2
ARB066	Architectural Applications 6	8	4

INDUSTRIAL DESIGN MAJOR

Year 1, Semester 1

ARB140	Introductory Design 1	16	8
ARB141	The Human Environment 1	4	2
ARB147	History of the Built Environment 1	6	3
ARB151	Design Technology & Society	2	1
BNB001	Learning at University	2	1.5
COB163	Professional Writing	6	1.5
MAB181	Applied Mathematics for Designers 1	6	3
PHB144	Applied Science for Designers 1	6	3

Year 1, Semester 2

ARB241	History of the Built Environment 2	6	3
ARB248	Introductory Design 2	18	9
ARB249	The Human Environment 2	6	2
ARB251	Ergonomics for Industrial Designers 1	4	2
CHB292	Applied Science for Designers 2	4	2
MAB196	Quantitative Methods 2	6	3
PSB054	Environmental Science	4	2

Year 2, Semester 1

ARB291	The Human Environment 3	4	2
ARB350	Industrial Design 1	18	8
ARB351	Ergonomics for Industrial Designers 2	4	2
ARB352	Visual Communication for Industrial Designers 1	4	2
ARB353	Manufacturing Technology 1	14	6
ARB354	Computer-aided Industrial Design 1	4	2

Year 2, Semester 2

ARB292	The Human Environment 4	4	2
ARB444	Environmental Impact	2	1
ARB450	Industrial Design 2	20	6
ARB452	Visual Communication for Industrial Designers 2	4	2
ARB453	Manufacturing Technology 2	10	5
ARB454	Computer-aided Industrial Design 2	4	2
MEB010	Dynamics 1	4	2

Year 3, Semester 1

ARB550	Industrial Design 3	20	6
ARB552	Visual Communication for Industrial Designers 3	4	2
ARB553	Manufacturing Technology 3	8	3
ARB554	Computer-aided Industrial Design 3	4	2
ARB555	Economics of Industrial Production	4	2
ARB556	Product Analysis & Development	4	2
MEB012	Dynamics 2	4	2

Year 3, Semester 2

ARB646	Law of the Built Environment	4	2
ARB650	Industrial Design 4	20	6
ARB652	Visual Communication for Industrial Designers 4	4	2
ARB653	Manufacturing Technology 4	14	5
ARB654	Computer-aided Industrial Design 4	6	2

INTERIOR DESIGN MAJOR

Year 1, Semester 1

ARB140	Introductory Design 1	16	8
ARB141	The Human Environment 1	4	2
ARB146	Introduction to Interior Technology 1	6	2
ARB147	History of the Built Environment 1	6	3
ARB161	Light & Colour Studies	8	3
BNB001	Learning at University	2	1.5
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	14	5
ARB248	Introductory Design 2	18	9
ARB249	The Human Environment 2	6	2
PSB054	Environmental Science	4	2

Year 2, Semester 1

ARB291	The Human Environment 3	4	2
ARB360	Interior Design 1	18	7
ARB361	Interior Technology 1	18	6
ARB362	Furniture & Fittings 1	4	2
ARB363	Visual Communication for Interior Designers 1	4	2

Year 2, Semester 2

ARB292	The Human Environment 4	4	2
ARB444	Environmental Impact	2	1
ARB460	Interior Design 2	16	7
ARB461	Interior Technology 2	16	6
ARB462	Furniture & Fittings 2	6	2
ARB463	Visual Communication for Interior Designers 2	4	2

Year 3, Semester 1

ARB560	Interior Design 3	20	6
ARB561	Interior Technology 3	16	7
ARB562	Furniture & Fittings 3	8	2
ARB563	Visual Communication for Interior Designers 3	4	2

Year 3, Semester 2

ARB646	Law of the Built Environment	4	2
ARB660	Interior Design 4	18	6
ARB661	Interior Technology 4	14	6
ARB662	Furniture & Fittings 4	8	2
ARB663	Research Methods	4	2

LANDSCAPE ARCHITECTURE 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
PSB074	Land Development	8	3
PSB230	Quantities & Costs	2	1
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	4	2
PSB280	Elective Unit (Landscape Architecture)	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)	3	2
Year 3, Semester 2			
ARB646	Law of the Built Environment	4	2
PSB015	Planning & Landscape Design 4	20	6
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: The new course structure listed below will be introduced from 1995. Students entering the course in 1995 will follow the new course structure. 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			
BNB002	Introduction to Engineering	6	3
CEB184	Engineering Mechanics 1	6	3

CHB002	Introduction to Engineering Chemistry[11]	(2)	(1)
CSB192	Introduction to Computing	8	3
EEB101	Circuits & Measurements	6	3
MAB103	Introductory Engineering Mathematics[12]	(8)	(3)
MAB187	Engineering Mathematics 1A	8	3
PHB134	Engineering Physics 1B	8	3
Select one of the following units:			
MEB121	Engineering Graphics	6	3
MEB133	Materials	6	3
Year 1, Semester 2			
COB163	Professional Writing	6	1.5
EEB203	Circuit Analysis	6	3
EEB270	Digital Design Principles	6	3
EEB271	Basic Electronic Devices	8	3
MAB188	Engineering Mathematics 1B	8	3
PHB234	Engineering Physics 2B	8	3
Select the unit not undertaken in Semester 1:			
MEB121	Engineering Graphics	6	3
MEB133	Materials	6	3
Year 2, Semester 1			
EEB303	Network Theory 1	6	3
EEB362	Introduction to Communications Systems	6	3
EEB374	Electronic Circuit Analysis	6	3
EEB380	Engineering Management Skills	8	3
EEB390	Engineering Computing 1	8	3
MAB487	Engineering Mathematics 2A	8	3
MEB362	Thermofluids	6	3
Year 2, Semester 2			
EEB401	Network Theory 2	6	3
EEB420	Control Systems 1	6	3
EEB475	Microprocessor Systems	6	3
EEB692	Space Technology	6	3
MAB488	Engineering Mathematics 2B	8	3
MEB111	Dynamics	8	3
MEB454	Aerodynamics 1	8	3
Year 3, Semester 1			
EEB563	Signals & Linear Systems	6	3
EEB580	Aerospace Design 1	6	3
EEB593	Software Systems Engineering	6	3
MAB893	Engineering Mathematics 3	8	3
MEB553	Aerodynamics 2	6	3
MEB690	Aircraft Systems	8	3
	Elective Unit 1 (Select from List A)	8	
Year 3, Semester 2			
EEB624	Control Systems 2	8	3
EEB680	Aerospace Design 2	8	3
EEB682	Engineering Business Skills	8	3
MEB551	Propulsion & Engines	8	3
MEB611	Stability & Control of Aircraft	8	3
	Elective Unit 2 (Select from List B)	8	
Year 4, Semester 1			
EEB784/1	Aerospace Project	16	6
EEB821	Production Technology & Quality	8	3

[11] *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.*

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

EEB780	Aerospace Design 3	8	3
	Elective Unit 3 (select from List C)	8	3
	Elective Unit 4 (select from List C)	8	3

Year 4, Semester 2

EEB784/2	Aerospace Project	16	6
EEB820	Engineering Management	8	3
	Elective Unit 5 (Select from List D)	8	3
	Elective Unit 6 (Select from List D)	8	3
	Elective Unit 7 (Select from List D)	8	3

ELECTIVE LISTS

List A

"A" Elective Units:

EEB473	Integrated Electronics	8	3
EEB661	Information Theory Modulation & Noise	8	3
EEB691	Aeronautical Computing	8	3

List B

"A" Elective Units:

EEB562	Transmission & Propagation	8	3
EEB602	Signal Processing	8	3
EEB722	Flight Control Systems	8	3
EEB967	Digital Communications	8	3

List C

"A" Elective Units:

EEB645	Remote Sensing	8	3
EEB662	Microwave & Antenna Technology	8	3
EEB762	Communications Technology	8	3
EEB947	Radar & Radio Navigation	8	3
EEB968	Digital 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" Elective Units:

EEB822	Advanced Control Systems	8	3
EEB891	Signal Computing & Real Time DSP	8	3
EEB932	Automatic Flight Control	8	3
EEB933	Combat Systems	8	3
EEB934	Advance 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" Elective Units:

EEB761	Statistical Communications	8	3
EEB890	Advanced Information Technology Topics	8	3
EEB956	Photovoltaic Engineering	8	3
EEB962	Microwave Systems Engineering	8	3
EEB969	Digital Signal Filtering, Detection, Estimation and Classification (Semester 2)	8	3
EEB972	Integrated Electronic Techniques	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 Applied 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 or masters degree courses.

■ 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 new course structure listed below will be introduced from 1995. Students entering the course in 1995 will follow the new course structure. Continuing students 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.

Course Structure (Commencing Students)

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB002	Introduction to Engineering	6	3
CEB184	Engineering Mechanics 1[13]	6	3
CHB002	Introduction to Engineering Chemistry[11]	(2)	(1)
CSB192	Introduction to Computing	8	3
EEB101	Circuits & Measurements	6	3
MAB103	Introductory Mathematics[12]	(8)	(3)
MAB187	Engineering Mathematics 1A[13]	8	3
PHB134	Engineering Physics 1B	8	3
Select one unit from the following:			
MEB121	Engineering Graphics[15]	6	3
MEB133	Materials[15]	6	3

[11] *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.*

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

[13] *Students who have not successfully completed these subjects may enrol in summer school units. Details are available from the course coordinator.*

[15] *To spread the load on the computer laboratories students will be allocated to one or other of MEB121 or MEB133.*

Year 1, Semester 2

CEB185	Engineering Mechanics 2[13]	6	3
COB163	Professional Writing	6	1.5
ESB229	Geology for the Built Environment	6	2
MAB188	Engineering Mathematics 1B	8	3
PSB907	Surveying	8	3
SCB246	Engineering Physics and Chemistry	8	3

Select one unit not undertaken in Semester 1:

MEB121	Engineering Graphics[15]	6	3
MEB133	Materials[15]	6	3

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[2]	8	3.5
CEB254	Structural Engineering 1	8	3.5
CEB260	Fluid Mechanics	8	3.5
CEB293	Engineering Science	8	4
MAB487	Engineering Mathematics 2A	8	3

Year 2, Semester 2

CEB201	Steel Structures	8	3.5
CEB202	Concrete Structures 1[2]	8	3.5
CEB211	Highway Engineering	8	4
CEB241	Soil Mechanics 2[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	3.5
CEB306	Concrete Structures 2	8	3
CEB307	Construction Practice	8	3.5
CEB362	Hydraulic Engineering 2	8	3
CEB370	Public Health Engineering	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[2]	8	3
CEB313	Traffic Engineering	8	3
CEB341	Geotechnical Engineering 1	8	3
CEB355	Structural Engineering 3	8	3
CEB371	Water & Wastewater Systems	8	3

Year 4, Semester 1

CEB403	Professional Practice	8	3
CEB405/1	Civil Engineering Design 2	8	3
CEB406	Structural Applications	8	3
CEB491/1	Project (Civil)	8	3
	Elective Unit	8	
	Elective Unit	8	

Year 4, Semester 2

CEB401	Design Project	8	3
CEB405/2	Civil Engineering Design 2	8	3
CEB491/2	Project (Civil)	8	3
	Elective Unit	8	
	Elective Unit	8	
	Elective Unit	8	

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

[13] *Students who have not successfully completed these subjects may enrol in summer school units. Details are available from the course coordinator.*

[15] *To spread the load on the computer laboratories students will be allocated to one or other of MEB121 or MEB133.*

Students enrolled for the Environmental Major complete these units:

Year 2, Semester 1

CEB221	Engineering Investigation Analysis & Reporting	8	4
CEB240	Soil Mechanics 1[2]	8	3.5
CEB254	Structural Engineering 1	8	3.5
CEB260	Fluid Mechanics	8	3.5
CEB293	Engineering Science	8	4
MAB487	Engineering Mathematics 2A	8	3

Year 2, Semester 2

CEB201	Steel Structures	8	3.5
CEB202	Concrete Structures 1[2]	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
CEB307	Construction Practice	8	3.5
CEB362	Hydraulic Engineering 2	8	3
CEB370	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
CEB305	Construction Planning and Economics[2]	8	3
CEB313	Traffic Engineering	8	3
CEB371	Water & Wastewater Systems	8	3
CEB543	Environmental Geotechnology	8	3

Year 4, Semester 1

CEB403	Professional Practice	8	3
CEB406	Structural Applications	8	3
CEB475/1	Environmental Engineering Design	8	4
CEB491/1	Project (Civil)	8	3
CEB561	Coastal Engineering	8	3
CEB570	Waste Management	8	3

Year 4, Semester 2

CEB341	Geotechnical Engineering 1	8	3
CEB471	Environmental Design Project	8	3
CEB475/2	Environmental Engineering Design	8	3
CEB491/2	Project (Civil)	8	3
CEB502	Project Control	8	3
CEB575	Environmental Impact Assessment	8	3

Part-time Course Structure

Year 1, Semester 1

BNB002	Introduction to Engineering	6	3
CEB184	Engineering Mechanics 1	6	3
CHB002	Introduction to Engineering Chemistry[11]	(2)	(1)
EEB101	Circuits & Measurements	6	3
MAB103	Introduction to Engineering Mathematics[12]	(8)	(3)

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

[11] *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.*

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

MAB187	Engineering Mathematics 1A	8	3
MEB121	Engineering Graphics[15]	6	3
Year 1, Semester 2			
CEB185	Engineering Mechanics 2	6	3
COB163	Professional Writing	6	1.5
ESB229	Geology for the Built Environment	6	2
MAB188	Engineering Mathematics 1B	8	3
MEB133	Materials[15]	6	3
Year 2, Semester 1			
CEB254	Structural Engineering 1	8	3.5
CEB293	Engineering Science	8	4
CSB192	Introduction to Computing	8	2
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 and Chemistry	8	3
Year 3, Semester 1			
CEB221	Eng Investigation Analysis & Reporting	8	4
CEB240	Soil Mechanics 1[2]	8	3.5
CEB260	Fluid Mechanics	8	3.5
MAB487	Engineering Mathematics 2A	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[2]	8	3
CEB313	Traffic Engineering	8	3
CEB341	Geotechnical Engineering 1	8	3
CEB371	Water & Wastewater Systems	8	3
Year 5, Semester 1			
CEB304/1	Civil Engineering Design 1	8	3.5
CEB307	Construction Practice	8	3.5
CEB403	Professional Practice	8	3
CEB406	Structural Applications	8	3
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			
CEB405/1	Civil Engineering Design 2	8	4
CEB491/2	Project (Civil)	8	3
	Elective Unit	8	
	Elective Unit	8	

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

[15] *To spread the load on the computer laboratories students will be allocated to one or other of MEB121 or MEB133.*

Year 6, Semester 2

CEB401	Design Project	8	3
CEB405/2	Civil Engineering Design 2	8	3
CEB491/2	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[16]	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
CEB570	Waste Management	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 Geotechnology	8	3
CEB551	Advanced Structural Design	8	3
CEB560	Hydraulic Engineering 3	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 (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: Dr Tee Tang

Professional Recognition

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

Note: The new course structure listed below will be introduced from 1995. Students entering the course in 1995 will follow the new course structure. Continuing students should refer to their course summary sheets or contact the School of Electrical and Electronic Systems Engineering for enrolment details.

[16] *Under negotiation.*

Course Structure (Commencing Students)

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB002	Introduction to Engineering	6	3
CEB184	Engineering Mechanics 1	6	3
CHB002	Introduction to Engineering Chemistry[11]	(2)	(1)
CSB192	Introduction to Computing	8	3
EEB101	Circuits & Measurements	6	3
MAB103	Introductory Mathematics[12]	(8)	(3)
MAB187	Engineering Mathematics 1A	8	3
PHB134	Engineering Physics 1B	8	3
Select one unit from the following:			
MEB121	Engineering Graphics	6	3
MEB133	Materials 1	6	3
Year 1, Semester 2			
COB163	Professional Writing	6	1.5
EEB203	Circuit Analysis	6	3
EEB270	Digital Design Principles	6	3
EEB271	Basic Electronic Devices	8	3
MAB188	Engineering Mathematics 1B	8	3
PHB234	Engineering Physics 2B	8	3
Select the unit not undertaken in Semester 1:			
MEB133	Materials 1	6	3
MEB121	Engineering Graphics	6	3
Year 2, Semester 1			
EEB302	Electrotechnology 1	6	3
EEB303	Network Theory 1	6	3
EEB362	Introduction to Communications Systems	6	3
EEB374	Electronic Circuit Analysis	6	3
EEB380	Engineering Management Skills	8	3
EEB390	Engineering Computing 1	8	3
MAB487	Engineering Mathematics 2A	8	3
Year 2, Semester 2			
EEB400	Electrotechnology 2	6	3
EEB401	Network Theory 2	6	3
EEB420	Control Systems 1	6	3
EEB475	Microprocessor Systems	6	3
EEB587	Design 1	8	3
MAB488	Engineering Mathematics 2B	8	3
MEB111	Dynamics	8	3
Year 3, Semester 1			
EEB473	Integrated Electronics	8	3
EEB530	Engineering Electromagnetics	6	3
EEB563	Signals & Linear Systems	6	3
EEB593	Software Systems Engineering	6	3
EEB788	Design 2	6	3
MAB893	Engineering Mathematics 3	8	3
	Elective Unit 1 (Select from List A)	8	3
Year 3, Semester 2			
EEB562	Transmission & Propagation	8	3
EEB601	Real-time Operating Systems	8	3

[11] *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.*

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

EEB602	Signal Processing	8	3
EEB624	Control Systems 2	8	3
EEB682	Engineering Business Skills	8	3
	Elective Unit 2 (Select from List B)	8	3

Year 4, Semester 1

EEB789/1	Project	16	6
EEB821	Production Technology & Quality	8	3
EEB887	Design 3	8	3
	Elective Unit 3 (Select from List C)	8	3
	Elective Unit 4 (Select from List C)	8	3

Year 4, Semester 2

EEB789/2	Project	16	6
EEB820	Engineering Management	8	3
	Elective 5 (Select from List D)	8	3
	Elective 6 (Select from List D)	8	3
	Elective 7 (Select from List D)	8	3

ELECTIVE LISTS

List A

"A" Electives

EEB532	Power Systems 1	8	3
EEB661	Information Theory Modulation & Noise	8	3

List B

"A" Electives

EEB632	Power Systems 2	8	3
EEB967	Digital Communications	8	3

List C

"A" Electives

EEB662	Microwave & Antenna Technology	8	3
EEB742	Power Systems Engineering	8	3
EEB762	Communications Technology	8	3
EEB791	Advanced Engineering Computing 1	8	3
EEB968	Digital Signal Filtering, Detection, Estimation and Classification	8	3
EEB971	Applied Electronics	8	3
	OR		
	A third year "A" Elective not yet attempted		
	OR		
	"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

EEB652	Power Electronics	8	3
EEB741	Power Systems Analysis	8	3
EEB822	Advanced Control Systems	8	3
EEB891	Signal Computing & Real Time DSP	8	3
EEB892	Advanced Engineering Computing 2	8	3
EEB969	Signal Filtering and Estimation	8	3
	OR		
	A third year "A" Elective not yet attempted		
	OR		
	"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

EEB922	Industrial Control Systems	8	3
EEB951	High Voltage Equipment	8	3
EEB954	Electrical Energy Utilisation	8	3
EEB955	Power Electronics Applications	8	3
EEB956	Photovoltaic Engineering	8	3
EEB962	Microwave Systems Engineering	8	3
EEB972	Integrated Electronic Techniques	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 or masters degree courses.

Part-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
Year 1, Semester 1			
CHB002	Introduction to Engineering Chemistry[11]	(2)	(1)
CSB192	Introduction to Computing	8	3
EEB101	Circuits & Measurements	6	3
MAB103	Introductory Mathematics[12]	(8)	(3)
MAB187	Engineering Mathematics 1A	8	3
PHB134	Engineering Physics 1B	8	3
Year 1, Semester 2			
EEB203	Circuit Analysis	6	3
EEB271	Basic Electronic Devices	8	3
MAB188	Engineering Mathematics 1B	8	3
PHB234	Engineering Physics 2B	8	3
Year 2, Semester 1			
BNB002	Introduction to Engineering	6	3
CEB184	Engineering Mechanics 1	6	3
EEB303	Network Theory 1	6	3
MAB487	Engineering Mathematics 2A	8	3
MEB121	Engineering Graphics	6	3
Year 2, Semester 2			
COB163	Professional Writing	6	1.5
EEB270	Digital Design Principles	6	3
MAB488	Engineering Mathematics 2B	8	3
MEB111	Dynamics	8	3
MEB133	Materials	6	3
Year 3, Semester 1			
EEB302	Electrotechnology	6	3
EEB362	Introduction to Telecommunications	6	3
EEB374	Electronic Circuit Analysis	6	3
EEB380	Engineering Management Skills	8	3
EEB390	Engineering Computing 1	8	3
Year 3, Semester 2			
EEB400	Electrotechnology 2	6	3
EEB401	Network Theory 2	6	3
EEB420	Control Systems 1	6	3
EEB475	Microprocessor Systems	6	3
EEB587	Design 1	8	3

[11] *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.*

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

Year 4, Semester 1			
EEB473	Integrated Electronics	8	3
EEB530	Engineering Electromagnetics	6	3
EEB563	Signals and Linear Systems	6	3
EEB788	Design 2	6	3
MAB893	Engineering Mathematics 3	8	3
Year 4, Semester 2			
EEB562	Transmission and Propagation	8	3
EEB602	Signal Processing	8	3
EEB624	Control Systems 2	8	3
EEB682	Engineering Business Skills	8	3
Year 5, Semester 1			
EEB593	Software Systems Engineering	6	3
EEB821	Production Technology & Quality	8	3
EEB887	Design 3	8	3
	Elective 1 (Select from List A)	8	3
Year 5, Semester 2			
EEB601	Real-time Operating Systems	8	3
EEB789/1	Project	16	6
	Elective 2 (Select from List B)	8	3
Year 6, Semester 1			
EEB789/2	Project	16	6
	Elective 3 (Select from List C)	8	3
	Elective 4 (Select from List C)	8	3
Year 6, Semester 2			
EEB820	Engineering Management	8	3
	Elective 5 (Select from List D)	8	3
	Elective 6 (Select from List D)	8	3
	Elective 7 (Select from List D)	8	3

■ Bachelor of Engineering (Mechanical) (ME45)

Location: Gardens Point campus

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

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Dr Doug Hargreaves

Professional Recognition

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

Note: The new course structure listed below will be introduced from 1995. Students entering the course in 1995 will follow the new course structure. Continuing students should consult the course summary sheet or the School of Mechanical and Manufacturing Engineering for transition arrangements.

Course structure (Commencing Students)

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB002	Introduction to Engineering	6	3
CEB184	Engineering Mechanics 1	6	3
CHB002	Introduction to Engineering Chemistry[1]	(2)	(1)

[1] *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.*

CSB192	Introduction to Computing	8	3
EEB101	Circuits and Measurements	6	3
MAB103	Introductory Mathematics [12]	(8)	(3)
MAB187	Engineering Mathematics 1A	8	3
PHB134	Engineering Physics 1B	8	3
Select one unit from the following:			
MEB121	Engineering Graphics	6	3
MEB133	Materials 1	6	3
Year 1, Semester 2			
COB163	Professional Writing	6	1.5
EEB209	Electrical Engineering 2M	6	3
MAB188	Engineering Mathematics 1B	8	3
MEB101	Design 1	8	3
MEB111	Dynamics	8	3
MEB212	Mechanics of Solids	6	3
Select the unit not undertaken in Semester 1:			
MEB121	Engineering Graphics	6	3
MEB133	Materials 1	6	3
Year 2, Semester 1			
MAB487	Engineering Mathematics 2A	8	3
MEB314	Mechanics 1	8	4
MEB334	Materials 2	8	4
MEB352	Thermodynamics 1	8	4
MEB363	Fluids 1	8	4
MEB381	Design 2	8	3
Year 2, Semester 2			
MAB488	Engineering Mathematics 2B	8	3
MEB430	Materials 3	8	4
MEB455	Thermodynamics 2	8	4
MEB465	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
MEB512	Noise and Vibrations	8	4
MEB513	Stress Analysis	8	4
MEB572	Manufacturing Engineering 2	8	4
MEB662	Fluid Power	8	4
	Elective Unit (select from List A)	8	
Year 3, Semester 2			
MEB554	Heat Transfer	8	4
MEB613	Mechanics 2	8	4
MEB641	Automation 1	8	4
MEB661	Tribology	8	4
MEB672	Total Quality Management	8	3
	Elective Unit (Select from List B)	8	
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	4
	Elective Unit (Select from List C)	8	3

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

Year 4, Semester 2

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

Part-Time Course Structure

Year 1, Semester 1

BNB002	Introduction to Engineering	6	3
CEB184	Engineering Mechanics 1	6	3
CHB002	Introduction to Engineering Chemistry[12]	(2)	(1)
MAB103	Introductory Mathematics[11]	(8)	(3)
MAB187	Engineering Mathematics 1A	8	3
MEB121	Engineering Graphics	6	3
PHB134	Engineering Physics 1B	8	3

Year 1, Semester 2

COB163	Professional Writing	6	1.5
MAB188	Engineering Mathematics 1B	8	3
MEB101	Design 1	8	3
MEB133	Materials 1	6	3
MEB212	Mechanics of Solids	6	3

Year 2, Semester 1

CSB192	Introduction to Computing	8	3
EEB101	Circuits and Measurements	6	3
MEB334	Materials 2	8	4
MEB352	Thermodynamics 1	8	4

Year 2, Semester 2

EEB209	Electrical Engineering 2M	6	3
MEB111	Dynamics	8	3
MEB430	Materials 3	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
MEB465	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
MEB513	Stress Analysis	8	4
MEB572	Manufacturing Engineering 2	8	4
MEB662	Fluid Power	8	4

Year 4, Semester 2

MEB554	Heat Transfer	8	4
MEB613	Mechanics 2	8	4
MEB641	Automation 1	8	4
MEB672	Total Quality Management	8	3

[11] *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.*

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

Year 5, Semester 1

FNB116	Financial Management for Engineers	8	2
MEB512	Noise and Vibrations	8	4
MEB711	Automation 2	8	4
	Elective Unit (Select from List A)	8	3

Year 5, Semester 2

HRB111	Industrial Management	8	2
MEB661	Tribology	8	4
MEB775	Technology Management	8	3
	Elective Unit (Select from List B)	8	3 or 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	9
	Elective Unit (Select from List D)	8	3

Elective Lists

List A

MEB450	Air Conditioning	8	3
MEB500	Special Topic 1	8	3
MEB531	Advanced Materials	8	3
MEB676	Design for Manufacturing 1	8	3

List B

MEB601	Special Topic 2	8	3
MEB680	Advanced Mechanical Design	8	3
MEB873	Computer Integrated Manufacturing	8	4
MEB950	Process Plant Design	8	3

List C

MEB701	Special Topic 3	8	3
MEB774	Operations Management	8	3
MEB951	Energy and the Environment	8	3
MEB980	Design of Power Transmission Systems	8	3

List D

BNB003	Professional Practice in Asia/Pacific	8	3
MEB800	Special Topic 4	8	3
MEB810	Industrial Noise and Vibration	8	3
MEB960	Fluid Systems Design	8	3

■ Bachelor of Engineering (Medical) (ME46)

Location: Gardens Point campus

Course Duration: 4 years full-time

Total Credit Points: 394

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Professor William Scott

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 either biomedical or mechanical engineers.

Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CEB184	Engineering Mechanics 1	6	3
CSB192	Introduction to Computing	8	3
EEB101	Circuits and Measurements	6	3
LSB131	Anatomy	12	6
MAB103	Introductory Mathematics[12]	(8)	(3)
MAB187	Engineering Mathematics 1A	8	3
MEB190	Engineering in the Medical Environment	6	3
PHB134	Engineering Physics 1B	8	3
Year 1, Semester 2			
CSB491	Unix & C	4	2
EEB209	Electrical Engineering 2M	6	3
LSB231	Physiology	12	6
MAB188	Engineering Mathematics 1B	8	3
MEB111	Dynamics	8	3
MEB133	Materials	6	3
MEB212	Mechanics of Solids	6	3
Year 2, Semester 1			
HMB274	Functional Anatomy	12	4
LSB132	Cell Biology	8	3
MAB487	Engineering Mathematics 2A	8	3
MEB121	Engineering Graphics	6	3
MEB352	Thermodynamics 1	8	4
MEB363	Fluids 1	8	4
Year 2, Semester 2			
HMB272	Biomechanics	12	4
MAB488	Engineering Mathematics 2B	8	3
MEB314	Mechanics 1	8	4
MEB333	Biomaterials	8	3
MEB473	Manufacturing Engineering 1	8	4
MEB484	Bioengineering Design 1	8	3
Year 3, Semester 1			
COB136	Professional Communication	6	3
MAB893	Engineering Mathematics 3	8	3
MEB465	Biofluids	8	3
MEB513	Stress Analysis	8	4
MEB580	Bioengineering Design 2	8	3
	Elective Unit (Select from List A)	8	
Year 3, Semester 2			
EEB271	Basic Electronic Devices	6	3
MEB641	Automation 1	8	4
MEB661	Tribology	8	4
MEB681	Bioengineering Design 3	8	3
PHB504	Instrumentation	8	3
	Elective Unit (Select from List B)	8	
Year 4, Semester 1			
FNB116	Financial Management for Engineers	8	2
HMB610	Clinical Measurement	8	3
MEB490/1	Project	8	3
MEB703	Reliability and Maintenance Optimisation	8	3
PUB210	Occupational Health & Safety 1	8	4
	Elective Unit (Selected from List C)	8	

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

Year 4, Semester 2

HRB111	Industrial Management	8	2
MEB490/2	Project	8	3
MEB672	Total Quality Management	8	3
MEB891	Health Legalisation & Medical Environment	8	3
PUB211	Occupational Health & Safety 2	8	4
	Elective Unit (Selected from List D)	8	

Elective Lists

LIST A

HMB614	Biophysical Bases of Movement Rehabilitation	8	3
HMB615	Exercise Physiology	8	3
MEB334	Materials 2	8	4

LIST B

HMB616	Psychology of Rehabilitation	8	3
HMB617	Workplace Health	8	3
MEB680	Advanced Mechanical Design	8	3

LIST C

HMB611	Human Performance	8	3
MEB572	Manufacturing Engineering 2	8	4
MEB780	Rehabilitation Equipment Design & Evaluation	8	3

LIST D

MEB450	Air Conditioning	8	3
MEB740	Maintenance Management & Technology	8	3
MEB892	Robotics in Health Care	8	3

■ Bachelor of Surveying (PS47)[10]

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 Brian Hannigan

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 of industrial employment/practice in a surveying 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 HE1006, ITE Building, Gardens Point campus. Should employment exceed the minimum required, it is strongly recommended that these

[10] *See course requirements and notes relating to undergraduate courses.*

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 employment/practice.

Students may be required to attend 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.

Full-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
BNB001	Learning at University	2	1.5
COB163	Professional Writing	6	1.5
CSB192	Introduction to Computing	8	3
ESB229	Geology in the Built Environment	6	2
MAB103	Introductory Engineering Mathematics[12]	(8)	(3)
MAB187	Engineering Mathematics 1A	8	3
PHB134	Engineering Physics 1B	8	3
PSB315	Land Administration 1	6	3
PSB325	Land Surveying 1	8	3
Year 1, Semester 2			
CSB291	Introduction to FORTRAN	4	2
MAB188	Engineering Mathematics 1B	8	3
PHB172	Physics for Surveyors	6	3
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	6	3
MEB221	Engineering Science 1	6	3
PSB054	Environmental Science	4	2
PSB307	Cartography 2	8	3
PSB319	Land Administration 5[18]	6	3
PSB327	Land Surveying 3[19]	10	3
PSB342	Spatial Information Science 1	8	3
PSB902	Urban Planning 1[18]	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

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

[18] *This unit is to be undertaken by students in the Mapping strand only.*

[19] *This unit is to be undertaken by students in the Surveying strand only.*

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
PSB336	Photogrammetry 3	8	3

Select one of the following options:

Option 1 – Surveying strand

PSB330	Land Surveying 6	8	3

Option 2 – Mapping strand

PSB343	Spatial Information Science 2	8	3

Year 4, Semester 1

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

Select one of the following options:

Option 1 – Surveying strand

	Elective Units	12	

Option 2 – Mapping Strand

PSB344	Spatial Information Science 3	8	3
	Elective Units	4	

Year 4, Semester 2

PSB322	Land Development Practice 3	16	6
PSB338	Professional Practice	6	3
PSB339/2	Project	8	3
	Elective Units	10	

Select one of the following options:

Option 1 – Surveying strand

PSB332	Land Surveying 8	8	3

Option 2 – Mapping Strand

PSB345	Spatial Information Science 4	8	3

ELECTIVE UNITS

Year 4, Semester 1

CNB367	Real Estate Accounting 1	9	3
CNB465	Property Investment Analysis 1	8	3
CNB565	Land 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	2
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) Conversion Program

Location: Gardens Point campus

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

Total Credit Points: 144

Course Coordinator: Dr Frank Bullen

Entry Requirements:

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 have undertaken certain prerequisite subjects but may also seek exemptions.

Full-time Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
CEB221	Engineering Investigation, Analysis and Reporting	8	4
CEB224	Computer Applications	8	3
CEB225	Civil Projects A[2]	8	4
CEB293	Engineering Science	8	4
CEB305	Construction Planning & Economics	8	3
CEB307	Construction Practice[2]	8	3.5
CHB002	Introduction to Engineering Chemistry[20]	(2)	(1)
MAB103	Introductory Engineering Mathematics[20]	(8)	(3)
Year 1, Semester 2			
CEB202	Concrete Structures 1[2]	8	3.5
CEB241	Soil Mechanics 2[2]	8	3
CEB261	Hydraulic Engineering 1	8	3.5
CEB270	Environmental Science	8	3
MAB185	Introduction to Statistics	8	3
MAB187	Engineering Mathematics 1A	8	3
Year 2, Semester 1			
CEB226	Civil Projects B[2]	8	4
CEB227	Civil Investigation Project[2]	8	4
CEB370	Public Health Engineering	8	3.5
CEB372	Environmental Technology	8	3
MAB188	Engineering Mathematics 1B	8	3
	Elective Unit	8	

Part-time Course Structure

Year 1, Semester 1			
CEB221	Engineering Investigation, Analysis and Reporting	8	4
CEB293	Engineering Science	8	4

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

[20] *This unit must be taken by students not obtaining at least a SA in Grade 12 Chemistry and Mathematics or their equivalents.*

CEB307	Construction Practice[2]	8	3.5
CHB002	Introduction to Engineering Chemistry[20]	(2)	(1)
MAB103	Introductory Engineering Mathematics[20]	(8)	(3)
Year 1, Semester 2			
CEB261	Hydraulic Engineering 1	8	3.5
CEB270	Environmental Science	8	3
MAB187	Engineering Mathematics 1A	8	3
Year 2, Semester 1			
CEB225	Civil Projects A[2]	8	4
CEB372	Environmental Technology	8	3
MAB188	Engineering Mathematics 1B	8	3
Year 2, Semester 2			
CEB202	Concrete Structures 1[2]	8	3.5
CEB241	Soil Mechanics 2[2]	8	3
MAB185	Introduction to Statistics	8	3
Year 3, Semester 1			
CEB224	Computer Applications	8	3
CEB226	Civil Projects B[2]	8	4
CEB370	Public Health Engineering	8	3.5
Year 3, Semester 2			
CEB227	Civil Investigation Project[2]	8	4
CEB305	Construction Planning & Economics[2]	8	3
	Elective Unit	8	
ELECTIVE UNITS			
CEB313	Traffic Engineering	8	3
CEB371	Water & Wastewater Systems	8	3
CEB543	Environmental Geotechnology	8	3
	OR		
	Any other approved subject from the BE course		

■ Bachelor of Technology (Mechanical) (ME35) Conversion Program

Location: Gardens Point campus

Course Duration: 3 year part-time

Total Credit Points: 151 (minimum)

Course Coordinator: Dr Andy Tan

Entry Requirements

Applicants require an Associate Diploma in Mechanical or Manufacturing Engineering or a Bachelor of Science degree in a relevant discipline. Applicants holding an Associate Diploma in other engineering disciplines will also be considered. Such candidates may be required to complete additional units.

Course Structure		Credit Points	Contact Hrs/Wk
Year 1, Semester 1			
MAB103	Introductory Engineering Mathematics[12]	8	3

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

[12] *MAB103 Introductory Mathematics is to be taken only by those students not obtaining a HA or better in Maths B and a SA or better in Maths C or its equivalent.*

[20] *This unit must be taken by students not obtaining at least a SA in Grade 12 Chemistry and Mathematics or their equivalents.*

MAB185	Introduction to Statistics	8	3
MEB334	Materials 2	8	4
Year 1, Semester 2			
MAB187	Engineering Mathematics 1A	8	3
MEB111	Dynamics	8	3
MEB455	Thermodynamics 2	8	4
Year 2, Semester 1			
HRB148	Managing People at Work	8	2
MAB188	Engineering Mathematics 1B	8	3
MEB314	Mechanics 1	8	4
Year 2, Semester 2			
MEB465	Fluids 2	8	4
MEB670	Industrial Engineering 1	6	3
MEB773	Design for Manufacturing 1	7	3
Year 3, Semester 1			
MEB463	Tribology	6	3
MEB501/1	Project	8	3
MEB572	Manufacturing Engineering 2	8	4
	Elective Unit (Select from List A)		3
Year 3, Semester 2			
HRB149	Human Resources & Industrial Relations	8	2
MEB501/2	Project	8	3
MEB740	Maintenance Management & Technology	8	3
	Elective Unit (Select from List B)		3

Elective Lists

List A

MEB450	Air Conditioning	7	3
MEB660	Fluid Power	6	3
MEB675	Plastics Technology	7	3

List B

MEB550	Heat Transfer	6	3
MEB612	Mechanical Measurements	8	3
MEB774	Operations Management	7	3

■ Associate Diploma in Civil Engineering (CE21)[10]

Course Discontinued: No further intakes. Years 2 to 4 are offered to continuing students only.

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: Dr Frank Bullen

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.

[10] *See course requirements and notes relating to undergraduate courses.*

Course Requirements/Notes

There are two majors in the course: a General Major and a Water and Wastewater Process Operation Major. The General Major is offered both full-time and part-time. The Water and Wastewater Process Operation Major will be offered in the part-time mode, subject to quotas.

The first four semesters of the part-time course are common to the General and Water and Wastewater Process Operation Majors.

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 8 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. For the employment to be recognised, students must enrol in the industrial employment unit(s) in the semester in which they expect to submit their completed form for obtaining credit. The form must be completed by both the student and the employer. Details of acceptable industrial employment can be obtained from the Course Coordinator.

Full-Time Course Structure		**Credit Points**	**Contact Hrs/Wk**
GENERAL MAJOR (GEN)			
Year 2, Semester 1			
CET306	Field Practice 1A[2]	3	2
CET387	Civil Engineering Drafting A	3	2
CET565	Road & Drainage Engineering	7	3
CET585	Civil Engineering Drafting	7	3
CET756	Building Construction Practice	7	3
CET775	Public Health Engineering	7	3
	List B1 Elective Unit	7	
	List B2 Elective Unit	7	
Year 2, Semester 2			
CET405	Field Practice 2A[2]	3	2
CET495	Project A[2]	3	2
CET704	Civil Construction Practice	7	3
CET708	Specifications & Estimates	7	3
	Two List B1 Elective Units	14	
	Two List B2 Elective Units	14	
Part-Time Course Structure			
GENERAL MAJOR (GEN)			
Year 3, Semester 1			
CET565	Road & Drainage Engineering	7	3
CET585	Civil Engineering Drafting	7	3
CET775	Public Health Engineering	7	3
Year 3, Semester 2			
CET708	Specifications & Estimates	7	3
CET756	Building Construction Practice	7	3
	List B1 Elective Unit	7	
Year 4, Semester 1			
CET704	Civil Construction Practice	7	3
	List B1 Elective Unit	7	
	List B2 Elective Unit	7	

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

Year 4, Semester 2

	List B1 Elective Unit	7	
	Two List B2 Elective Units	14	

WATER AND WASTEWATER PROCESS OPERATION MAJOR

Year 3, Semester 1

Select one of the following options:

Option 1

CET565	Road & Drainage Engineering	7	3
CET585	Civil Engineering Drafting	7	3
CET775	Public Health Engineering	7	3

Option 2

CET598	Project 2	21	9

Year 3, Semester 2

CET776	Equipment Operation & Maintenance	7	3
CHA145	Introductory Chemistry	8	3
CHA644	Process Measurement & Monitoring 1	7	3

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 A – All Elective Units in the Course

CET420	Civil Systems 2	7	3
CET606	Construction Management (Evening)	7	3
CET655	Concrete & Steel Design (Day & Evening)	7	3
CET703	Civil Engineering Practice 1	7	3
CET707	Municipal Engineering (Evening)	7	3
CET735	Advanced Laboratory Testing 1	7	3
CET787	Structural Engineering Drawing (Day)	7	3
CET797	Project 1[2]	7	3
CET802	Civil Engineering Practice 2	7	3
CET838	Advanced Laboratory Testing 2	7	3
CET856	Advanced Construction Techniques	7	3
CET887	Computer Aided Drafting (Day & Evening)	7	3
CET888	Structural Drawing & Design (Day)	7	3
CHA145	Introductory Chemistry (Evening)	8	3
EST219	Engineering Geology	7	3
HRX111	Safety & Industrial Relations (Evening)	7	2
MET140	Engineering Materials 1	8	3

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

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

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[2]	7	3
CET797	Project 1[2]	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[2]	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.

■ Associate Diploma in Electrical Engineering (EE22)[10]

Course Discontinued: No further intakes. Years 3 and 4 are offered to continuing students only.

Location: Gardens Point campus

Course Duration: 1 year full-time plus 2 years part-time, 4 years part-time

Total Credit Points: 192

Standard Credit Points/Full-Time Semester: 48

Course Coordinator: Mr Jim Lyall

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 options

Students are required to select two of the following four modules as their majors – Computer Systems, Industrial Systems, Power or Telecommunications.

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

[10] *See course requirements and notes relating to undergraduate courses.*

Note: 1995 is the final year any units in this course will be available. Students who will not complete the course in 1995 should contact the Course Coordinator.

		Unit No.	Credit Points	Contact Hrs/Wk
COMPUTER SYSTEMS UNITS				
EET791	Computer Programming 2	(c)	7	3
EET891	Advanced Computing Techniques	(d)	7	3
INDUSTRIAL SYSTEMS UNITS				
EET720	Modern Control Technology	(c)	7	3
EET870	Industrial Electronics	(d)	7	3
POWER UNITS				
EET753	Testing & Commissioning Techniques	(c)	7	3
EET840	Substations & Protection Systems	(d)	7	3
TELECOMMUNICATIONS UNITS				
EET760	Communications Engineering 2	(c)	7	3
EET860	Communications Technology	(d)	7	3

Part-Time Course Structure

Normally, part-time students must engage in at least 120 weeks of approved employment, ie. 15 weeks for each of the eight industrial employment units, before being eligible for the Associate Diploma award. For the employment to be recognised, students must enrol in the industrial employment units, then submit an industrial experience record form, which has been completed by both the student and the employer. However, a combination of practical experience units and industrial experience totalling 24 credit points will be accepted. Forms are available from the Faculty office.

		Unit No.	Credit Points	Contact Hrs/Wk
Year 4, Semester 1				
	Major 1 Unit	(c)	7	3
	Major 2 Unit	(c)	7	3
	Elective Unit		7	3
Year 4, Semester 2				
EET880	Design		7	3
	Major 1 Unit	(d)	7	3
	Major 2 Unit	(d)	7	3
Industrial Employment Units				
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

Notes

1. Major 1 and Major 2 units refer to units taken from two of the four modules, viz., Computer Systems, Industrial Systems, Power or Telecommunications; (a), (b), (c) and (d) refer to units within each module.
2. For the elective, a unit may be chosen from any other module which runs in the same semester. Degree level units may be selected as elective units with the approval of the Course Coordinator.

■ Associate Diploma in Mechanical Engineering (ME23)[10]

Course Discontinued: No further intakes. Year 4 is offered to continuing part-time students only.

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: Mr Andy Tan

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.

Part-Time Course Structure		Credit Points	Contact Hrs/Wk
Year 4, Semester 1			
MET572	Production Planning & Control	6	3
MET933	Industrial Tribology	6	3
	Elective Unit	6	3
Year 4, Semester 2			
MET350	Process Engineering	7	3
MET971	Industrial Practice	7	3
	Elective Unit	7	3
Elective Units			
FIRST SEMESTER			
EEB101	Circuits & Measurements (degree level)	7	3
MAB187	Engineering Mathematics 1A (degree level)	6	3
MET511	Noise, Stress & Vibration Practice	6	3
MET733	Industrial Metallurgy	6	3
MET782	Jig & Tool Design	6	3
MET850	Energy Management	6	3
PHB132	Engineering Physics 1A (degree level)	6	3
SECOND SEMESTER			
MAA251	Statistics & Data Processing	8	3
MAB188	Engineering Mathematics 1B (degree level)	6	3
MEB111	Dynamics (degree level)	7	3
MET352	Air Conditioning & Refrigeration	7	3
MET680	Machine Elements 2	7	3
MET960	Fluid Power	7	3
Industrial Experience			
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

[10] *See course requirements and notes relating to undergraduate courses.*

Notes

1. From time to time a series of special elective units may be made available to meet industrial demand, provided both student numbers and staff resources can justify their inclusion in the course. Not all of the elective units listed will be available each semester.
2. Degree level units may be selected as elective units with the approval of the Head of School.
3. Generally, a student who has been full-time to this stage of the course will gain or have gained 24 credit points by successfully completing six practical experience units designated by the suffix 'A' after the unit name, while a part-time student will gain 24 credit points for successfully completing 120 weeks of 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.
4. Students completing industrial employment units must enrol in the units in the semester in which they expect to submit an industrial experience record form for obtaining credit. The form must be completed by both the student and the employer. Forms are available from the Faculty office.