

## Faculty of Built Environment and Engineering

### Associate Degree

CE35 Associate Degree in Civil Engineering/Bachelor of Technology (Civil)

### University Diploma

ME37 Advanced Diploma in Engineering (Mechanical)/Bachelor of Technology (Mechanical)

### Bachelor Degree

AR48 Bachelor of Architecture

BN31 Bachelor of Built Environment (Architectural Studies)

BN31 Bachelor of Built Environment (Industrial Design)

BN31 Bachelor of Built Environment (Interior Design)

BN31 Bachelor of Built Environment (Landscape Architecture)

BN31 Bachelor of Built Environment (Urban and Regional Planning)

CE44 Bachelor of Engineering (Civil)

CE46 Bachelor of Engineering (Civil and Environmental Management)

CN51 Bachelor of Applied Science (Construction Management)

CN53 Bachelor of Applied Science (Quantity Surveying)

CN54 Bachelor of Property Economics

DE40 Bachelor of Design

DE40 Bachelor of Design (Architectural Studies)

DE40 Bachelor of Design (Industrial Design)

DE40 Bachelor of Design (Interior Design)

DE40 Bachelor of Design (Landscape Architecture)

EE41 Bachelor of Engineering (Electrical and Computer Engineering)

EE42 Bachelor of Engineering (Electrical and Computer Engineering)

EN40 Bachelor of Engineering

EN40 Bachelor of Engineering (Aerospace Avionics)

EN40 Bachelor of Engineering (Civil and Construction)

EN40 Bachelor of Engineering (Civil and Environmental)

EN40 Bachelor of Engineering (Civil)

EN40 Bachelor of Engineering (Computer Systems)

EN40 Bachelor of Engineering (Electrical)

EN40 Bachelor of Engineering (Infomechatronics)

EN40 Bachelor of Engineering (Mechanical)

EN40 Bachelor of Engineering (Medical)

EN40 Bachelor of Engineering (Telecommunications)

EN40 Bachelor of Engineering - Dean's Scholars Program

IX25 Bachelor of Engineering (Software Engineering)

ME37 Advanced Diploma in Engineering (Mechanical)/Bachelor of Technology (Mechanical)

ME40 Bachelor of Engineering (Infomechatronics)

ME41 Bachelor of Engineering (Mechanical)

ME41 Bachelor of Engineering (Mechanical) Conversion Program from Bachelor of Technology

ME36/ME37

ME42 Bachelor of Engineering (Mechanical)

ME48 Bachelor of Engineering (Medical)

PS47 Bachelor of Surveying

UD40 Bachelor of Urban Development

UD40 Bachelor of Urban Development (Construction Management)

UD40 Bachelor of Urban Development (Property Economics)

UD40 Bachelor of Urban Development (Quantity Surveying)

UD40 Bachelor of Urban Development (Spatial Science)

UD40 Bachelor of Urban Development (Urban and Regional Planning)

### **Bachelor Degree (Double)**

IF21 Bachelor of Engineering (Electrical)/ Bachelor of Mathematics

IF28 Bachelor of Engineering (Electrical)/Bachelor of Business

IF59 Bachelor of Engineering (Electrical)/Bachelor of Information Technology

IX28 Bachelor of Business / Bachelor of Engineering

IX54 Bachelor of Engineering (Electrical)/Bachelor of Information Technology

### **Graduate Certificate**

BN85 Graduate Certificate In Built Environment and Engineering

CN81 Graduate Certificate in Project Management

IX97 Graduate Certificate in Research Commercialisation

### **Graduate Diploma**

AR61 Graduate Diploma in Industrial Design

PS66 Graduate Diploma in Landscape Architecture

PS72 Graduate Diploma in Urban and Regional Planning

### **Masters Degree (Coursework)**

AR49 Master of Architecture

BN87 Master of Engineering Management

BN88 Master of Infrastructure Management

BN89 Master of Project Management

CN77 Master of Project Management

CN92 Master of Property Economics

DE50 Master of Design (Urban Design)

DE80 Master of Architecture

EN50 Master of Engineering (Systems)

IX99 Master of Research and Development Management

UD50 Master of Urban Development (Urban and Regional Planning)

### **Masters Degree (Research)**

BN71 Master of Applied Science (Research)

BN72 Master of Engineering

### **Doctoral**

IF49 Doctor of Philosophy (Built Environment, Engineering)

### **English Programs (International)**

QC10 English for Academic Purposes for Degree programs

QC10 English for Academic Purposes for Foundation and University Diploma Programs

QC22 English for Tertiary Preparation

QC24 English For Academic Purposes Plus

- QE05 General English Program (5 Weeks)
- QE10 General English Program (10 Weeks)
- QE15 General English Program (15 weeks)
- QE20 General English Program (20 Weeks)
- QE25 General English Program (25 Weeks)
- QE30 General English Program (30 Weeks)
- QE35 General English Program (35 Weeks)
- QE40 General English Program (40 Weeks)
- QE45 General English Program (45 Weeks)

### **Foundation Programs**

- QC01 Accelerated Foundation
- QC02 Standard Foundation
- QC04 Extended Foundation

### **University Certificate**

- QC05 University Certificate In Tertiary Preparation

### **University wide unit sets**

- Unit sets: Accounting, Economics and Finance
- Unit sets: Advertising, Integrated Marketing Communication, Logistics, Marketing and Public Relations
- Unit sets: Built Environment and Design
- Unit sets: Communication
- Unit sets: Creative Industries
- Unit sets: Engineering
- Unit sets: Entertainment
- Unit sets: Entrepreneurship, Human Resource Management and Management
- Unit sets: Natural Resource Sciences
- Unit sets: Faculty of Health
- Unit sets: International Business, Languages, and Tourism and Entertainment Marketing
- Unit sets: International Exchange
- Unit sets: Justice and Law
- Unit sets: Mathematical Sciences
- Unit sets: Multimedia and Technologies
- Unit sets: Physical and Chemical Sciences
- Unit sets: Science
- Unit sets: Society and Culture
- Unit sets: Urban Development and Construction

## OVERVIEW

QUT's Built Environment and Engineering Faculty is all about changing and growing to better meet the needs of students, industry and the professions.

The real world does not stand still and neither do our courses. Industry partners and professional bodies are closely involved in our course development and are increasingly demanding graduates with more breadth and superior skills in dealing with clients and other professionals.

We work hard to ensure all courses are fully recognised or accredited both in Australia and overseas. Sometimes this puts limits on how much choice students have in what they study, but wherever possible we encourage you to broaden your core studies with subjects from across the Faculty or other QUT faculties.

Depending on your course, you can choose an eight unit second major or up to two four unit minors in another field. The Faculty has packaged up a range of second majors and minors that ensure you get a rich and meaningful depth of knowledge in a complementary area rather than skating over the surface of the discipline.

Undergraduate courses are grouped around three broad themes with course structures that maximise interaction:

### **Bachelor of Design**

- Architecture
- Interior Design
- Industrial Design
- Landscape Architecture.

### **Bachelor of Urban Development**

- Construction Management
- Property Economics
- Quantity Surveying
- Urban and Regional Planning
- Spatial Science.

### **Bachelor of Engineering**

- Aerospace Avionics
- Civil
- Civil and Environmental
- Civil and Construction
- Electrical
- Infomechatronics
- Mechanical
- Medical
- Software.

These courses are supported by an extensive research base in the Faculty that is grouped around core themes of medical engineering, smart systems, sustainability and infrastructure. Our research focuses on problems that need to be solved and brings together brilliant people with diverse backgrounds to find new answers. The Faculty is a key player in QUT's research institutes for Sustainable Resources and Health and Biomedical Innovation.

The Faculty has formed partnerships with a range of high-profile organisations including Shell, Brisbane Airport Corporation, Brisbane City Council, CSIRO, QRAIL and Queensland Government. Our partners provide living laboratories for our research and bring their experience to

bear through part-time teaching or hosting students undertaking internships and practicums.

A number of the professional bodies that accredit our courses set minimum requirements for practical experience that students must have achieved by the time they graduate. For example, Engineering students complete at least 60 days approved real-work experience and Spatial Science students must have 90 days of such experience. Students complete their work experience through the Faculty's Work Integrated Learning (WIL) programs which combine university study with real work experience.

Courses in Design and Urban Development can also include opportunities to work on real-world projects. Student work in planning and design regularly wins industry awards and competitions.

## SENIOR STAFF

### **Faculty Office**

*Executive Dean:* Professor M. Betts, BSc (Hons) *Reading*, PhD CNAAB, FCIQB, FRICS, FIEAust, FRSA, CPEng

*Assistant Dean, Teaching and Learning:* Professor S. Savage, BArch (Hons) *MArch Qld*, DipAdultVocEd *Griff*.

*Assistant Dean, Research:* Professor J.M. Bell, BSc (Hons) *Syd.*, PhD *NSW*, FIEAust, MAIP, CPEng

*Assistant Dean, External Relations (Acting):* Mr Bernie Murchison, BBus (Comm), MBus (CommMgmt), FPRIA

### **School of Design**

*Head (Acting):* Professor J.M. Franz, BAppSc (BltEnv) *QIT*, DipTeach *TAFE*, MEdSt *Qld*, PhD *QUT*, MDIA (Accredited Designer), RegTeach (Qld)

#### *Professors:*

J. Birkeland, BA (Fine arts), MA (Arch), JD (Law), PhD (Sustainability)  
 L. Buys, BS *W. Virginia*, GradDip *N.Colorado*, MA *S.Illinois*, PhD *N.Colorado*, Fellow Australian Association of Gerontology  
 R. Drogemuller, BArch BAppSc (Maths & Comp)  
 G. Lee, DipID *RMIT*, MLArch *Melb.*, PhD *RMIT*  
 V. Popovic, GradEngArch *Belgrade*, MFA(IndDes) *Ill.*, PhD *Syd.*, FDIA, MHFS, MAES, MDRS

#### *Associate Professors:*

S. Bucolo, BAppSc, GDID, MAppSc, PhD, FDIA  
 J.M. Franz, BAppSc(BltEnv) *QIT*, DipTeach *TAFE*, MEdSt *Qld*, PhD *QUT*, MDIA (Accredited Designer), RegTeach (Qld)  
 M. Taylor, BA (Hons), Dip Arch (Dist), *Portsmouth*, PhD *UQ* (in progress)

### **School of Urban Development**

*Head:* Professor S. Kajewski, BEng (Civil), GradDip-ProjMgt, MBuiltEnv (ProjMgt) PhD *QUT*, MIEAust, CPEng, MAIB, RPEQ

*Professor of Infrastructure Management:* A. Kumar, BTech *IIT Delhi*, MSCE *Purdue*, GradDipMgt

*Chair in Transport Efficiency:* L. Ferreira, BSc *Lond.*, MSc *Westminster*, PhD *Leeds*, FIEAust, FCIT

*Professors:*

S. Dhanasekar, BE (Civil), MTech (Structures), PhD, MIEAust, CPEng, MIEInd, RPEQ  
 A. Goonetilleke, BSc (Eng) *S.Lanka*, MSc *Griff.*, PhD *QUT*, CPEng, FIEAust  
 M. Mahendran, BScEng (Hons) *Moratuwa*, PhD *Monash*, MIEAust, CPEng  
 R.M. Skitmore, MSc PhD *Salford*, FRICS, MCIQB, FAIB, AAIQS  
 D.P. Thambiratnam, BScEng (Hons) *Ceyl.*, MSc PhD *Manit*, FICE, FIEAust, FASCE, CPEng  
 J. Yang, BEng *DUT China*, PhD *QUT*

*Associate Professors:*

D. Baker, BGeog/EngLit, MResMgt *SFU*, PhD *Waterloo*  
 T. H. T. Chan, BE (Hons) *UQ*, MDiv *BCV*, PhD *UQ*  
 L. Dawes, BAppSci(Geology) *QIT*, PhD *QUT*  
 P. Heywood, BA(Hons) *Oxf.*, DipTP *Manc.*, MRTPI, FRAPI, LGP(Qld)  
 B. Trigunarsyah, BScEng *Colorado School of Mines USA*, MScConstructMgt *UOI*, PhD *Melb.*

**School of Engineering Systems**

*Head:* Professor D.J. Hargreaves, BE (Mech) *QIT*, MSc PhD *Leeds*, CPEng, RPEQ, FIEAust, EngExec, MIMechE, MSTLE, MASSCT, MAAEE, MAICD, NPER

*Professor and Chair in Orthopaedic Research:* R.W. Crawford, FRACS (Orth), MAOA

*Professor in Power Engineering:* A. Ghosh, BE (Elec) ME (Elec) *Calcutta*, PhD *Calgary*, FIEEE, FIAE, FIE

*Professor and Chair in Regenerative Medicine:* D.W. Hutmacher, MBiomedEng, PhD *NUS*, MBA *Henley*, MITES, METES, MISB, MAO

*Professor and Chair in Power Engineering:* G. Ledwich, BE (Hons) *Qld*, PhD *Newcastle (NSW)*, FIEAust, SMIEEE

*Professor in Medical Engineering:* V.O.A. Oloyede, BSc (Mech) (Hons) *Lagos*, MSc (Materials) *Cranfield*, PhD *DIC ImpCol*, GradCert (HigherEd) *QUT*, MNSE, MNYAS, MAAAS

*Professor of Biomedical Engineering:* M.J. Pearcy, BSc *Brist.*, PhD *Strath.*, CEng, CPEng (Biomed)

*Professor and Chair in Traumatology:* M.A. Schütz, DrMed *RWTH Aachen*, DrMedHabil *HU Berlin*, FRACS, FAOA, MDGC, MDGU

*Professor in Smart Systems:* P.K.V.D Yarlagadda, BTech (Mech) *Nagarjuna*, ME (Prod.Eng) *Bharathiar*, PhD *IIT*, FIEAust, FIE, SMSME, MASME, MIMechE, MSPE

*Professors:*

S. Birlasekaran, ME *IISc*, PhD *Qld*, PE  
 W. Boles, BSc(Elec) *Assiut*, MSc(Elec) PhD *Pitt.*, Grad-Cert(HigherEd) *QUT*, MAAEE, APRS, MIEAust, MIEEE  
 M.F. Brereton, BSc(Mech)(Hons) *Brist.*, MSc(Tech&Policy), MSc(Eng) *MIT*, PhD *Stanford*  
 V. Chandran, BTech(Elec) *IIT Madras*, MS(Elec) *TexasTech*, MS(CompSci) PhD *Wash.State*, Grad-Cert(HigherEd) *QUT*, SMIEEE, MAPRS  
 P. Corke, BE (Hons), M Eng Sci, PhD *Melbourne*

L. Ma, BEng(Mech and Man) *Beijing*, PhD *Qld*, MESA  
 P.J. O'Shea, BE(Elec)(Hons), DipEd, PhD *Qld*, SMIEEE  
 S. Sridharan, BSc(Elec) *Ceyl.*, MSc(Comm) *Manc.*, PhD *NSW*, SMIEEE  
 T.A. Steinberg, BEngSci(Mech) MEngSci(Mech) PhD *NMSU USA*, CPEng, RPEQ, SMIEAust, MASTM, MSA  
 C.C. Tan, BSc(Mech)(Hons) PhD *Westminster*, CPEng, MIMechE, FIEAust, MIEM  
 R.A. Walker, BE(Elec)(Hons) BAppSc(Comp) PhD *QUT*, MIEEE, MESA, MION, MAUVSI, MAIAA  
 G. Wyeth, BE (Hons), GradCert(Ed), PhD *Qld*

*Associate Professors:*

C. Adam, BE(Mech)(Hons) PhD *James Cook*, Grad-Cert(HigherEd) *QUT*, MIEAust, CPEng, NPER, MIRSSD  
 R. Brown, BE (Hons) *UTS*, B Theology *SCD*, PhD *Sydney*  
 D. Campbell, ADElecEng *QIT*, BSc(Elec)(Hons), PhD *LaTrobe*, MIEAust, MIEEE, MAAEE  
 V. Kosse, BE(Mech) PhD *ASTU Ukraine*, MASME, CMIEAust, MIAV, CMITC, RPEQ  
 X. Miao, BEng(Mat) *NE*, MEng(Mat) GRINM, PhD *Birmingham*, MMRS, MASB  
 Y. Xiao, BDSc MDSc *Hubei Med*, PhD *Qld*, MTEIS, MASMR, MIADR, MICHTS  
 C. Yan, B. Eng, M. Eng, PhD *Sydney*  
 F. Zare, BE(Elec), *Gilan University*, MS(Power), *K.N Toosi University*, PhD *QUT*

**RESEARCH THEMES**

**Design**

Design concentrates on investigation of people-systems-environments relationships and provides new knowledge and innovation beneficial to their users. Research in design fields improves the quality of work and life and brings social and economic advantages to the industry and community. Design incorporates research in:

- Architecture
- Industrial Design
- Interior Design
- Landscape Architecture
- Urban Design
- Centre for Subtropical Design

The theme is cross/inter – disciplinary related with relevant DESIGN fields and the other three Faculty Research Themes: Infrastructure, Smart Systems and Medical Engineering. It has links across the University community and Institutes – Institute for Health and Biomedical Innovation (IHBI), Institute for Creative Industries Innovation (iCi), Information Security Institute (ISI), Institute for Sustainable Resources and relevant Collaborative Research Centres (CRC) – ACID, Construction and Innovation and AHURI.

**Research focus within the theme includes:**

- Colour and light
- Cultural landscapes
- Design Education and Design Theory and Methodology
- Design Tools



- Human-Centred Design Research and Usability
- Person-Environment Studies
- Sustainable Systems
- Virtual prototyping

### Medical Engineering

This Theme develops and promotes the use of engineering and technology, often in collaboration with surgeons, to provide new techniques, materials, devices, procedures and manufacturing techniques for medical devices. Medical Engineering is based largely on core mechanical and electrical engineering skills applied to problems in medicine. The applied research is built on a strong foundation of knowledge in biomechanics, fluid mechanics and automation and control, but incorporates knowledge in cell biology, human anatomy and physiology. New knowledge is being developed and applied to the full range of orthopaedic diseases and injury (such as knee and hip replacements, fractures and spinal deformities), other diseases such as heart failure, and to provide improved quality of life for people with disabilities. The Theme includes research in the following areas:

#### **Orthopaedic and Trauma**

Orthopaedics and Trauma Queensland incorporates programs of research collaboration with hospital partners. Key research is conducted in bone and cartilage diseases; bone and cartilage substitute systems; bone fracture healing; spinal surgical procedures; and osteoporotic bone and crush fractures.

#### **Artificial Organs**

This area of research investigates non-biological replacement organs, for example, artificial heart; congestive heart failure; and impaired function of other organs.

#### **Compression Bandaging**

This research project aims to gain a better understanding of the clinical application of pressure bandaging to develop improved bandaging techniques and clinical practice.

### Smart Systems

#### **Asset Management**

Infrastructure research, in collaboration with industry, government and professions, aims to strengthen the nation's building and infrastructure systems. Research concentrates on investigating the performance of existing and new building and infrastructure systems under realistic structural and environmental loadings including those due to natural, accidental and man-made hazards. It uses smart materials, systems and technologies, and advanced computer analysis and test methods to assess and improve the performance of existing and new building and infrastructure systems.

Asset Management research focuses on innovative industry-directed research and development, education and commercialisation in an integrated approach to lifecycle physical asset management to meet present and future needs to ensure international competitiveness and sustainability of Australian industry. The overall research program will be focused on five main industry sectors: Defence, Water and Waste, Power Generation and Distribution, Extraction and Process, and Transport Infrastructure.

This research is closely aligned to the CRC for Construction Innovation and the CRC for Integrated Engineering Asset Management (CIEAM).

#### **Robotics and Automation**

The Robotics and Automation program is focused on world-class research on robotics and navigation systems for unmanned aerial vehicles, and involves collaboration with CSIRO and Boeing. However similar automation strategies and technologies are used in a variety of control applications such as energy network control, and in fovechotronic systems, and satellites. Much of the work in this group will be conducted through the newly formed Australian Research Centre for Aerospace Automation (ARCAA).

#### **Speech and Signal Processing**

This program conducts internationally competitive research in order to solve practical problems, which enable Speech and Signal Processing to be applied in products and processes. Research focuses on, state-of-the-art speech audio and video technologies including speech/speaker recognition and personal identification technologies for forensic and security applications; speech coding for storage and communication; speech synthesis for voice response systems; audio compression for broadcasting, television and Internet applications, video compression, and image recognition and restoration. Researchers in this area are supported by the CRC for Advanced Automotive Technology and the Information Security Institute.

### Infrastructure

#### **Energy**

The provision of sustainable energy supplies is of critical importance to the future of Australia, and this research involves experimental and theoretical research on solar cells, wind energy and solar thermal energy generation as well as fundamental research on energy supply networks, including distributed generation technology and energy policy. This research is conducted in collaboration with energy utilities and the Queensland Sustainable Energy Industry Development Group, and is a key component of the Institute for Sustainable Resources.

#### **Water**

The supply of fresh water and the quality of water supply are key issues facing Australia over the next 20 years, and this research looks at water re-use technology and policy. The research is practically focused with significant collaboration with local government and industry in South-East Queensland. Research in the Faculty links strongly with research in the Faculties through the i-water initiative of the Institute for Sustainable Resources.

#### **Transport**

The aim of this program is to focus research effort in the freight and logistics area with an emphasis on multi-modal transportation systems. The main research areas include freight vehicle impacts, freight and logistics e-business systems, freight corridor evaluation analysis, ITS applications in freight and logistics, emissions modelling, transit evaluation methodologies, rail track modelling and analysis, and intermodal terminal planning and operations.

#### **Housing and Construction**

This research makes contributions to improved practice in the specific areas of housing, urban planning, interna-

tional project management, construction and property performance, construction information and procurement technologies, and property market choice, investments, constraints opportunities, internationalisation, taxation, lifecycles, risk and culture. Much of the research in this area is supported by the Australian Housing and Urban Research Institute, the CRC for Construction Innovation and the Construction Industry Institute of Australia.

### Cooperative Research Centres (CRCs)

The faculty is also involved in the following Cooperative Research Centres (CRC) and externally-funded collaborative research ventures:

#### CRC for Construction Innovation

The Centre aims to create and commercially exploit tools, technologies and management systems to deliver innovative constructed assets of financial, environmental and social benefit to the community. The centre combines basic research with strategic research and development in five related programs: virtual environments for lifecycle design and construction; construction project delivery strategies; environmental sustainability; integrated design and construction support systems; and management, adaptability and the future of built assets.

#### CRC for Integrated Engineering Asset Management

The CRC for Integrated Engineering Asset Management (CIEAM) delivers capabilities and technologies for integrated and sustainable asset management to a wide range of Australian industries in both the private and the public sectors. CIEAM consists of leading edge researchers and practitioners focused on industry directed R&D and education in the management of Australia's major engineering assets in the Defence, Utilities (power, water and gas), Process and extraction, and Transportation industries. CIEAM involves five research program areas. These are Models and decision systems, Advanced sensors, Intelligent diagnostics and life prediction, Systems integration and IT, and Strategic human dimensions.

#### CRC for Railway Engineering and Technologies

The Centre aims through research to develop an internationally competitive, efficient and sustainable rail industry and to facilitate the development of an Australian export industry in railway technologies. Benefits will flow in terms of improved rail efficiency and infrastructure capacity, energy savings, reduced maintenance cost, and better asset utilisation. The main research areas include 'Smart train' intelligent systems; innovative/automated maintenance and upgrading technologies; optimal traffic control and scheduling; IT systems and standards for rail management; new materials, systems and components for railways; and industry skills development (education and training).

#### CRC for Advanced Automotive Technology

The CRC for Advanced Automotive Technology brings the automotive industry together with researchers in design, engineering and manufacturing to enhance the industry's international competitiveness. The aim of the research is to reduce the concept-to-product cycle times; improve manufacturing flexibility and efficiency; and the development of new material systems to meet the challenges of weight reduction, increased safety and greater functionality. The CRC will also improve vehicle safety through improvements in the crash worthiness of vehicles and new intelligent products/systems that provide increased comfort, performance and entertainment.

#### Australian Housing and Urban Institute (AHURI)

The Institute is a consortium of CSIRO Division of Building, Construction and Engineering; Queensland University of Technology; University of Queensland; Monash University; and Royal Melbourne Institute of Technology (RMIT). Its broad objective is to conduct research into issues in housing and urban fields in Australia and the Asia-Pacific region.

#### Centre for Subtropical Design

The Centre for Subtropical Design is a collaboration between QUT, the Brisbane City Council and the Office of Urban Management, focussing on sustainable development of the subtropical urban environment. This Centre will promote high quality planning, design and development that responds to the City of Brisbane and South-East Queensland region's cultural, landscape, and climatic characteristics in ways that are sustainable and enhance the enjoyment of the region's subtropical lifestyle.

#### Queensland Sustainable Energy Industry Development Group

This group, formed in 2004 by QUT, the University of Queensland, Central Queensland University, Stanwell Corporation, CS Energy, and the Queensland Conservation Council, is continuing the work of the Australian CRC for Renewable Energy in areas of energy policy, training for the sustainable energy industry (supply and use), and renewable energy technology.

#### Australian Centre for Tropical Crops and Biocommodities

This Centre is the research division of the former Sugar Research Institute which transferred to QUT in July 2005. This Centre conducts research into the post-harvest processing and economics of sugar cane and has a particular expertise in milling technology (mechanical engineering and computational fluid dynamics modelling), separation science, and total biomass utilisation, in particular the transformation of sugar cane waste into biofuels (ethanol) and biopolymers to provide renewable fuels and industrial chemicals.

#### Australian Research Centre for Aerospace Automation (ARCAA)

ARCAA was formed in 2006 as a collaboration between CSIRO and QUT to promote the safe and efficient operation of Unmanned Vehicles in controlled airspace. The Centre is constructing a new research facility at Brisbane Airport where major programs on UAV navigation and collision avoidance, risk management and applications of UAV technology in areas as diverse as border security, vegetation management, and disaster recovery will be conducted.

#### Medical Engineering Research Facility (MERF)

The Medical Engineering Research Facility is a new \$10 million facility being constructed at the Prince Charles Hospital to provide state-of-the-art research and education facilities in orthopaedic research.

#### Australasian CRC for Interaction Design (ACID)

ACID is the leader in research and development in interaction design – using new technologies to work, live, learn and play. It builds on the strengths of more than 20 educational and corporate partners and is active internationally through new industry and university partnerships. ACID's research themes – Virtual Heritage, Smart Living,

Digital Media, Multi-User Environments and New Models of Advertising for Interactive Television – build connections between consumers and industry, content and application developers, software system developers and hardware manufacturers.

#### Construction Industry Institute of Australia (CIIA)

The Construction Industry Institute, Australia (CIIA) gives members the opportunity to access worldwide leading edge research and implement outcomes before others. Its vision is to create national wealth through innovative design, construction, engineering and management of sustainable built assets. The CIIA's mission is to undertake applied research, implementation and research training in the engineering, construction and property industries for the purpose of advancing knowledge, creating national wealth and providing a competitive advantage to Australian business in the national and international market place. The CIIA believes that wealth creation and industry improvement can best be achieved by collaboration between all parties involved in the project delivery process. Applied research projects are used as the bridge to bring together the participant, particularly clients and service providers, to generate creative ideas and undertake leading edge research that results in major breakthroughs which add significant value to members and Australian industry. The CIIA is part of an international network of similar institutes based at universities in the United States, Europe and Australia and more recently, in South East Asia. The goal of these Institutes is to undertake research to create value and stimulate industry change, and create a work environment that fosters innovation. They achieve this by bringing together researchers and industry participants in multi-disciplinary task forces focussing on programs of applied research and by providing their members with a forum for local, regional and international debate. The Institutes also collaborate with a wide range of sister research organisations across the world.

### Notes for BEE 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 repeated or taken again in the next semester that they are offered (usually the following year). Prerequisite units must normally be passed before a student may proceed to a further unit which has the prerequisite so specified. The course coordinator should be consulted regarding variations from the course structure. Students who have failed units, or have doubts about having the necessary background to proceed, should seek the advice of the course coordinator.

#### Limit of Grades of 3

From Semester 1, 2009, grades of 3 will be considered failing grades across all QUT Faculties and courses. Continuing students in 2010 may have grades of 3 designated as conceded passes on their academic record. In this case, continuing students enrolled in courses with the Faculty of Built Environment and Engineering can achieve a maximum of 12.5% of total course credit points at a grade of 3. Please note that any grades of 3

achieved from Semester 1, 2009 onwards will count as failing grades and will not contribute to the maximum allowable proportion of conceded passes.

#### Supplementary assessment

Supplementary assessment is provided to support transition into University and transition into the workplace. Supplementary assessment is a new item of assessment designed to assist students to complete the requirements for their qualification. Students who successfully complete their supplementary assessment requirements will be awarded a minimum passing grade (grade of 4). Please note the following:

- No more than four supplementary assessments will be available to students in their entire course of study.
- Students may be granted one supplementary assessment in a core or mandatory unit in the first 96 credit points of an undergraduate course. To be eligible, students must have obtained passing grades in all units other than that in which the supplementary assessment is sought.
- Students may be granted up to two supplementary assessments in the final 96 credit points of study, at the Faculty's discretion, for coursework programs of three or more years full-time duration or equivalent; and one supplementary assessment in the final 48 credit points for coursework programs of less than three years full-time duration or equivalent.
- Students may be granted supplementary assessment in a limited number of other cases where a final grade of 3 has been achieved.
- Supplementary assessment will not be granted to students who have been graded 1 (Low Fail) or K (Withdrawn Failure).

Students are responsible for making applications for supplementary assessment.

#### Awards with honours

Honours may be awarded to graduates of the following courses:

- DE40 Bachelor of Design
- EN40 Bachelor of Engineering
- UD40 Bachelor of Urban Development
- AR48 Bachelor of Architecture
- All pre-2005 four-year Bachelor of Engineering courses
- All five-year double degrees with the Bachelor of Engineering
- The four-year Bachelor of Applied Science courses in Construction Management, Quantity Surveying and Property Economics.
- All pre-2005 four-year Bachelor of Surveying courses.

First class honours, second class honours division A and second class honours division B may be awarded. Candidates for a degree with honours must fulfil the requirements for a pass degree and achieve a standard of profi-



ciency in all course units is determined by the Faculty Academic Board and approved by University Academic Board.

**Eligibility for honours**

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

**Honours based on grade point average**

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

The GPA calculation includes all attempts at units which are awarded a numeric grade, or the result 'Withdrawn — Failure' (which is converted to a grade of 1).

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

Students enrolled in double degrees must obtain the required GPA in the Engineering degree component to be eligible for BEE Honours.

**Awards with distinction**

Awards 'with distinction' may be awarded to graduands of the three-year single degree courses and the graduate diploma courses undertaken in the Faculty of Built Environment and Engineering. Candidates for a degree 'with distinction' must fulfil the requirements for a pass degree and achieve a standard of proficiency in all course units is determined by the Faculty Academic Board and approved by the University Academic Board.

**Eligibility for 'With Distinction'**

Eligibility for awards with distinction is not affected by the time taken to complete a course. However, to be eligible for such an award, a graduand must have completed the course within the maximum number of calendar years specified in the Student Rules. Three-year (full-time) courses must be completed in ten years. Time limits are measured in calendar years from the first day of the first semester in which the student was enrolled and include periods of interruption such as leave of absence. In addition, to be eligible for an award with distinction, a graduand must have completed at least 50% of the total credit points required for the course at QUT.

**Distinction based on grade point average**

The Built Environment and Engineering Academic Board has resolved that awards 'with distinction' will be based on grades achieved by students throughout the whole of

their course as determined by the grade point average calculation.

The GPA calculation includes all attempts at units which are awarded a numeric grade, or the result 'Withdrawn — Failure' (which is converted to a grade of 1).

Students obtaining a GPA of 5.5 or greater will normally qualify for the award of with distinction.

**Dean's list**

The Dean's List comprises students who have achieved a GPA of 6.50 or more within a semester. These students receive a certificate in recognition of their achievement.

**Use of calculators in examinations**

Restrictions apply on the use of calculators in examinations. Students should consult their unit coordinator for details.

**Field trips**

Attendance at field trips or field projects in engineering and surveying/mapping courses is compulsory.

**Personal Protection Equipment (PPE) Policy**

Protective equipment refers to safety glasses/goggles, hearing protection, safety boots, gloves and similar items. While all care is taken to reduce the risks to which students are exposed, protective equipment will be required to be worn in some practical sessions and field excursions. Students are required to wear PPE where and when it has been made clear that it is needed. Students are required to provide certain PPE as indicated by each School within the Faculty.

Students enrolled in units specified by the Faculty of Built Environment and Engineering will be required to wear safety shoes for most 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. Students must provide their own safety shoes, safety glasses/goggles and hearing protection equipment.

All students are bound by the Queensland Workplace Health and Safety Act. In this respect, students carrying out their final year projects will be required to do a risk assessment of such projects, including risk management and control to prevent incident and accidents.

**Industrial experience for DE40 Bachelor of Design (Architectural Studies) (students who commenced 2006 and after)**

Protective equipment refers to safety glasses/goggles, hearing protection, safety boots, gloves and similar items. While all care is taken to reduce the risks to which students are exposed, protective equipment will be required to be worn in some practical sessions and field excursions. Students are required to wear PPE where and when it has been made clear that it is needed. Students are required to provide certain PPE as indicated by each School within the Faculty.

Students enrolled in units specified by the Faculty of Built Environment and Engineering will be required to wear safety shoes for most 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 assess-

ment associated with these activities. Students must provide their own safety shoes, safety glasses/goggles and hearing protection equipment.

All students are bound by the Queensland Workplace Health and Safety Act. In this respect, students carrying out their final year projects will be required to do a risk assessment of such projects, including risk management and control to prevent incident and accidents.

**Industrial experience requirements for EN40 Bachelor of Engineering (students who commenced 2006 and after)**

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of approved industrial experience/practice in an engineering environment as part of BEB701 Work Integrated Learning in Year 3 or 4.

Bachelor of Engineering (Aerospace Avionics) students are required to obtain 10 days specialist experience in the avionics industry. This is included in the 60 days industrial experience (WIL) requirement.

Industrial experience requirements for UD40 Bachelor of Urban Development (Students who commenced 2006 and after)

A candidate for the degree Bachelor of Urban Development (Spatial Science) must obtain at least 90 days of industrial experience (WIL) in a surveying environment as part of BEB701 Work Integrated Learning.

A candidate for the degree Bachelor of Urban Development (Quantity Surveying) must obtain at least 100 days of approved industrial experience (WIL) as part of BEB701 Work Integrated Learning.

A student in the Bachelor of Urban Development (Construction Management) seeking professional registration will be required to undertake specified minors that will involve 100 days of industrial experience (WIL) as part of BEB701 Work Integrated Learning.

A student in the Bachelor of Urban Development (Urban and Regional Planning) seeking professional registration is strongly encouraged to complete the Faculty Applications minor that will involve a minimum of 14 days industrial experience (WIL) as part of BEB701 Work Integrated Learning.

**Industrial experience for Engineering and Surveying/Mapping courses (students who commenced prior to 2006)**

Industrial Experience 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 is usually undertaken during the long vacation or the mid-semester recess as an employee of a private firm, government agency or local authority, but can also be accumulated as employment during semester.

Candidates must submit a report no later than the fourth week of the semester, following each period of Industrial Experience. The report is to be written in the required format describing work carried out during the period of Industrial Experience. An Industrial Experience Record Form signed by the employer is also to be submitted. Industrial Experience Record Forms.

A candidate for the degree of Bachelor of Technology (Civil) must obtain at least 45 days of industrial experience in an engineering environment approved by the course coordinator.

A candidate for the degree of Bachelor of Technology (Mechanical) must obtain at least 50 days of industrial experience approved by the course coordinator.

Bachelor of Engineering students must obtain at least 60 days of Industrial Experience in an engineering environment approved by the course coordinator.

Bachelor of Engineering (Aerospace Avionics) students are required to obtain 10 days specialist experience in the avionics industry. This is included in the 60 days industrial experience requirement.

Bachelor of Surveying students must obtain at least 90 days of industrial experience in a surveying environment approved by the course coordinator.

Industrial Experience information can be obtained from any of the BEE Student Services Counters listed below:

S Block, Level 10, Rm S1031 (School of Engineering Systems)

L Block, Level 2, Rm L220 (School of Urban Development)

D Block, Level 1 Resource Centre, Rm D-107 (School of Design).

**Enrolment in industrial experience**

Surveying/mapping and Engineering students enrolled in courses other than EN40 or UD40 should not formally enrol in industrial experience.

**Industrial experience requirements for Bachelor of Architecture (AR48) course**

A Bachelor of Architecture student must be engaged in approved employment for at least 72 recognised weeks within the last 2-3 years of the course (ADB796 Practice Experience B). Prior to entering Year 4 Semester 1 students enrolled in the full-time course structure, must have completed 20 recognised weeks of approved employment which will be credited to the requirements of Practice Experience B. Students enrolled in the flexible full-time course structure must be engaged in approved employment for at least 48 recognised weeks within the first 3 years of the course (ADB795 Practice Experience A). Flexible full-time students enrol in ADB795 Practice Experience A in second semester of third year. All students enrol in ADB796 Practice Experience B in the second semester of the final year of the course.

**Approved employment** means working under the direction of an architect who is registered at the place of practice where the experience is obtained.

**A recognised week** is 5 days actually worked (7.6 hrs per day with a maximum of 42 hours per week). The minimum period with one employer is 8 weeks.

**Allied experience** can be obtained in approved areas allied to architecture (e.g., Civil Engineering, Interior Design, Industrial Design, Quantity Surveying, Construction Management, Town Planning, Landscape Architecture, Building, etc). The maximum period of allied experience is 12 recognised weeks in ADB795 and 18 recognised weeks in ADB796.

**Prior work experience** under the direction of a registered architect before enrolment in the course is accepted

up to a maximum of 24 weeks in ADB795 and a maximum of 36 weeks in ADB796.

**Approved employment during leave of absence** is accepted (a) in ADB795 up to a maximum of 24 recognised weeks and (b) in ADB796 after completion of at least one semester of fourth year and prior approval of the course coordinator up to a maximum of 36 recognised weeks.

**Reporting each month** is required on the electronic logbook. Students without access to the electronic logbook system are to contact the course coordinator who will establish the reporting arrangements for their work experience. The electronic logbook automatically produces the AACA log-sheets required in ADB796.

**Credited employment period** only counts once (e.g., period required for ADB795 cannot also be used for the 20 week period for entry in the last 2 years full-time mode). The employment period of ADB795 for students admitted directly into the third year of the flexible full-time course is 24 recognised weeks and the employment period of ADB796 for students admitted directly into the last year of the course is one year (52 recognised weeks).

**Types of experience required:**

- **ADB795 Practice Experience A**

At least 50% of time in undertaking design and/or documentation duties.

- **ADB796 Practice Experience B**

(a) At least 50% of time in undertaking design and documentation duties.

(b) Provide the following experiences on the electronic AACA log sheets:

- contract documentation experience (AACA element 2.2.2); and
- preliminary site investigation and evaluation of at least one project during the last 2-3 years of the course (AACA element 3.1.2); and
- some aspect of the administration of the project contract of at least one project during the last 2-3 years of the course which can be 'observer' status where direct experience is unavailable (AACA element 3.3.1).

**Notes for BEE 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 repeated or taken again in the next semester they are offered (usually the following year). Prerequisite units must normally be passed before a student may proceed to a further unit which has the prerequisite so specified. The course coordinator should be consulted regarding variations from the course structure. This is considered to be a major concession. Students who have failed units or have doubts about having the necessary background to proceed should seek the advice of the course coordinator.

**Supplementary assessment**

Supplementary assessment is provided to support transition into the workplace. Supplementary assessment is a

new item of assessment designed to assist students to complete the requirements for their qualification. Students who successfully complete their supplementary assessment requirements will be awarded a minimum passing grade (grade of 4).

Please note the following:

- A maximum of two supplementary assessments will be available to students in coursework programs of less than three years full-time duration or equivalent.
- Students may be granted up to one supplementary assessment in their final 48 credit points of study, at the Faculty's discretion, for coursework programs of less than three years full-time duration or equivalent.
- Students may be granted supplementary assessment in a limited number of other cases where a final grade of 3 has been achieved.
- Supplementary assessment will not be granted to students who have been graded 1 (*Low Fail*) or K (*Withdrawn Failure*).

Students are responsible for making applications for supplementary assessment.

**Awards with distinction**

Awards 'with distinction' may be awarded to graduates of graduate diploma courses undertaken in the Faculty of Built Environment and Engineering. Candidates for a graduate diploma 'with distinction' must fulfil the requirements for a pass degree and achieve a standard of proficiency in all course units as is determined by the Faculty Academic Board and approved by the University Academic Board.

**Eligibility for 'With Distinction'**

Eligibility for awards 'with distinction' is not affected by the time taken to complete a course. However, to be eligible for such an award, a graduate must have completed the course within the maximum number of calendar years in the Student Rules. Time limits are measured in calendar years from the first day of the first semester in which the student was enrolled and include periods of interruption such as leave of absence. In addition, to be eligible for an award with distinction, a graduate must have completed at least 50% of the total credit points required for the course at QUT.

**Personal Protection Equipment (PPE) Policy**

Protective equipment refers to safety glasses/goggles, hearing protection, safety boots, gloves and similar items. While all care is taken to reduce the risks to which students are exposed, protective equipment will be required to be worn in some practical sessions and field excursions. Students are required to wear PPE where and when it has been made clear that it is needed. Students are required to provide certain PPE as indicated by each School within the Faculty.

Students enrolled in units specified by the faculty of Built Environment and Engineering will be required to wear

safety shoes for most 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. Students must provide their own safety shoes, safety glasses/goggles and hearing protection equipment.



## Bachelor of Architecture (AR48)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 5 years full-time

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412372;

**Past rank cut-off:** 90. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 480

**Standard credit points per full-time semester:** 48

**Course coordinator:** Ms Sheona Thomson

**Discipline coordinator:** Mr Paul Sanders

**Campus:** Gardens Point

### Please Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### Further Information

Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Architect.

## Master of Architecture (AR49)

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 067607D

**Course duration (full-time):** 2 years

**Domestic fees (indicative):** 2010: CSP \$3,783 (indicative) per semester

**International Fees (indicative):** 2010: \$10,750 (indicative) per semester

**Domestic Entry:** February and July (conditions apply for July entry)

**International Entry:** February and July (conditions apply for July entry)

**Total credit points:** 192

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Ms Sheona Thomson

**Discipline coordinator:** Dr Paul Sanders

**Campus:** Gardens Point

### Overview

The Master of Architecture enables the development of advanced yet balanced understanding in architectural design and research, contextual studies, technology and science and studies for professional practice. It is the professional degree required, along with the requisite post-graduate work experience, for registration as an architect.

### Entry Requirements

Completion of DE40 Bachelor of Design (Architectural Studies) or equivalent accredited 4-year architecture course; minimum GPA of 4.0 in scheduled final year units. Students from equivalent courses will also be assessed on an A3 folio of their design work in that course.

### International Student Entry

Subject to English language requirements, entry for international students will be the same as above.

### Professional Recognition

Graduates of the AR49 Master of Architecture meet the academic requirements for membership of the Australian Institute of Architects (AIA). Graduates who have also completed two years of practical architectural experience (at least one year postgraduate) will be eligible to undertake the Architectural Practice Examination which, if successful, will enable the graduate to be eligible for registration with any Board of Architects in Australia.

### Further information

The School of Design - Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course Structure

#### Year 2 - Semester 1

ADB009	Architectural Design 9
ADN052	Architectural Research 2
ADN067	Elective Architectural Applications
ADN932	Professional Studies 2

#### Year 2 - Semester 2

ADN014	Contextual Studies 4
ADN033	Professional Studies 3
ADN053	Architectural Project
ADN796	Practice Experience B

Year 2 program for students who previously undertook UDB302 with Course Coordinator approval.

#### Year 2 - Semester 1

ADB009	Architectural Design 9
ADN067	Elective Architectural Applications
ADN932	Professional Studies 2
BEN910	Integrated Project

#### Year 2 - Semester 2

ADN014	Contextual Studies 4
ADN033	Professional Studies 3
ADN053	Architectural Project
ADN796	Practice Experience B

## Graduate Diploma in Industrial Design

### (AR61)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2009: CSP \$3,690 per semester (indicative)

**International Fees (indicative):** 2009: \$10,500 per semester (indicative)

**Domestic Entry:** This course is open to continuing BN31 Graduates only. NO NEW OFFERS WILL BE MADE AFTER FEBRUARY 2008.

**International Entry:** This course is open to continuing BN31 Graduates only. NO NEW OFFERS WILL BE MADE AFTER FEBRUARY 2008.

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Jay Yang  
(Please refer all course enquiries to Course Leader.)

**Discipline coordinator:** Dr Kathi Holt-Damant (Course Leader)

**Campus:** Gardens Point

#### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Leader regarding their remaining course program.

#### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

#### Potential Careers:

Industrial Designer.

## **Bachelor of Built Environment (Architectural Studies) (BN31)**

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 003507D

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2009: CSP \$3,568 (indicative)  
per semester

**International Fees (indicative):** 2009: \$10,750 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**OP Guarantee:** Yes

**Assumed knowledge:** English (4 SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Ms Sheona Thomson

**Discipline coordinator:** Mr Paul Sanders

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further Information**

Phone +61 7 3138 2626, Fax +61 7 3138 5280, email:  
[bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)



## **Bachelor of Built Environment (Industrial Design) (BN31)**

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 003507D

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2009: CSP \$3,568 (indicative)  
per semester

**International Fees (indicative):** 2009: \$10,750 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412382

**Past rank cut-off:** 83. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Ms Sheona Thomson

**Discipline coordinator:** Mr Andrew Scott

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further information**

Phone +61 7 3138 2626, Fax +61 7 3138 5280, email:  
bee.enquiries@qut.com

### **Potential Careers:**

Industrial Designer.

## Bachelor of Built Environment (Interior Design) (BN31)

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 003507D

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2010: CSP \$3,783 per semester (indicative)

**International Fees (indicative):** 2010: \$11,500 per semester (indicative)

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412362

**Past rank cut-off:** 90. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Ms Sheona Thomson

**Discipline coordinator:** Mr Mark Taylor

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### For further information

Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Interior Designer.

## **Bachelor of Built Environment (Landscape Architecture) (BN31)**

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 003507D

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2010: CSP \$3,783 per semester (indicative)

**International Fees (indicative):** 2010: \$11,500 per semester (indicative)

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412342

**Past rank cut-off:** 80. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Ms Sheona Thomson

**Discipline coordinator:** Dr Jeannie Sim

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further information**

Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### **Potential Careers:**

Landscape Architect.

## **Bachelor of Built Environment (Urban and Regional Planning) (BN31)**

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 003507D

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2009: CSP \$3,568 (indicative) per semester

**International Fees (indicative):** 2009: \$10,750 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412352; Dee: 412356

**Past rank cut-off:** 77. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information. Dfee places were not offered last year.

**OP Guarantee:** Yes

**Total credit points:** 288

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr John Hayes

**Discipline coordinator:** Mr Paul Donehue

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further information**

Phone +61 7 3138 2852 Fax +61 7 3138 1515

email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### **Potential Careers:**

Urban and Regional Planner, Urban Designer.



## Master of Applied Science (Research) (BN71)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 007897G

**Course duration (full-time):** 1 year (minimum), 2 years (maximum)

**Course duration (part-time):** 2 years (minimum), 4 years (maximum)

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2010: \$12,000 per semester (indicative)

**International Fees (indicative):** 2010: \$12,250 (indicative) per semester

**Domestic Entry:** At any time

**International Entry:** At any time

**Campus:** Gardens Point

### Entry Requirements

A four-year degree in an appropriate discipline with Honours or equivalent qualification or a graduate diploma or masters degree in an appropriate discipline with a minimum grade point average of 5 with relevant experience or professional experience and/or other qualifications.

### Part-time Study

QUT advises that International Students may only enrol in full-time studies.

### Overview

From this research degree you acquire advanced knowledge of applied science research methods, applied to research problems in the built environment. As well as mastering relevant techniques, you can expect to develop high-level skills in investigation and critical thinking and extensive knowledge in a specialist area. Specialisations are available in Architecture, Interior Design, Industrial Design, Construction Management, Quantity Surveying, Property Economics, Project Management, Planning, Landscape Architecture and Surveying. Our Faculty staff are available to discuss your application with you. You are encouraged to approach them early in the development of the research proposal that forms part of your application. Master by Research studies normally include:

- \* assessed coursework
- \* participation in university scholarly activities such as research seminars, teaching and publication
- \* regular meetings with supervisors
- \* a program of supervised research and investigation
- \* preparation of a thesis.

### Fees

Australian students enrolling after August 31 2000 in a higher degree by research are subject to the conditions of the Commonwealth Government's Research Training Scheme (RTS). Research Students who enrol at QUT will be awarded an RTS place, which is funded by the Commonwealth, or a QUT Research Training Award Scheme (RTA) place, which is a fee remission scholarship.

Research Masters students are entitled to two years full-time equivalent study under these schemes, Students who exceed this entitlement may apply to QUT for an extension, however the University may charge fees for the period of the program which exceeds the student's entitlement. The University determines the fee level.

### HDR Director

Professor Mahen Mahendran

Phone: +61 7 3138 2543

fax: +61 7 3138 1515

### 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 University Research Committee which is a subcommittee of University Academic Board.

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

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

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

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

### 2 - Registration

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

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

2.3 There is a six-month maximum period for domestic students and nine months for international students,

between acceptance by the Faculty Research Committee and enrolment by the candidate in the Master of Applied Science (Research) or Master of Engineering before the offer of admission to the program lapses. Candidates are required to complete an enrolment form each semester.

## A Note Regarding Enrolment

The Faculty and Student Services are to be advised of any changes to name, address or other personal details. Application to vary any aspect of the candidacy must be made in writing directly to the Faculty Research Committee for Built Environment and Engineering and be endorsed by the principal supervisor.

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

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

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

The case may be based on the following:

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

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

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

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

2.7 In considering an applicant for registration, the Faculty Research Committee shall, in addition to assessing the

applicants suitability, be satisfied that:

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

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

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

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

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

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

2.12 The Faculty Research Committee may cancel a candidate's registration if, after consulting a candidate's supervisor and having taken account of all relevant circumstances, the committee is of the opinion that the candidate either has effectively discontinued their studies or has no reasonable expectation of completing the course of study within the maximum time allowed (see Section 4).

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

## 3 - Course of Study

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

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

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

3.4 Where advised, a candidate may be required to complete satisfactorily a program of formal coursework in subjects relevant to the field of study up to a total class contact of 32 credit points.

3.5 The course of study normally will include:

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

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

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

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

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

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

3.7 Maximum and Minimum Coursework Requirements:

Thesis - 96 credit points minimum (at least two-thirds of the degree content)

- \* Maximum coursework requirement - 32 credit points
- \* Minimum coursework requirement - 4 credit points - IFN001 Advanced Information Retrieval Skills
- \* Maximum of 16 credit points per semester for each semester of the program

\*Additional Requirements:

Attendance and participation in School of Research Centre seminars/workshops (compulsory).

Students must contact the Postgraduate Research Coordinator in their School to finalise any other coursework component of their program.

#### **4 - Period of Time for Completion of Course of Study**

4.1 The duration of study will normally be a minimum of one year and a maximum of two years 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 full-time graduate 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 part-time graduate student shall present the thesis for examination after a period of at least two years. The maximum time is four years from the time of confirmed registration. In special cases the Faculty Research Committee may approve a shorter period.

4.4 Time limits are measured in years from the time of first registration as a graduate student. Periods of exclusion or absence 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 termination by registered mail. They have right of appeal to the Academic Appeals Committee.

#### **5 - Supervision**

5.1 The Faculty Research Committee shall appoint at least one supervisor the principal supervisor and also at least one associate supervisor. Each member of the supervisory panel shall bring appropriate experience in the research area of the student.

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 Supervisory Panel shall supervise all aspects of the candidate's work program, shall receive reports from the candidate on progress and shall recommend to the Faculty Research Committee 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 Supervisory Panel shall receive a formal oral and written report from the candidate at least once every semester on progress on the research project.

5.5 Summary of Faculty Supervisory registration process: To ensure that students receive appropriate supervision from experienced supervisors and active researchers the Faculty has introduced a Supervisors Register which requires registered supervisors to demonstrate performance in three areas.

1. Practice - previous supervisory experience of at least five years.
2. Research - evidence of active research through grants and publications
3. Continuous development



**6 - Place and Conditions of Work**

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

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

- \* a supporting statement from the Head of the QUT School and/or Postgraduate Research Coordinator in the School in which the study is proposed indicating 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 is willing to undertake the responsibility of supervising the work of the applicant and that resources are available to support the proposed research.

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

- \* a supporting statement from the employer or director of the sponsoring institution that they are aware of the course rules and are prepared to sponsor and support the applicant, that the applicant will be provided with facilities and time to undertake the research project and that they are willing to accept responsibility for supervising the applicant's work, and

- \* a supporting statement from the head of the QUT school or Postgraduate Research coordinator in which the study is proposed indicating 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 is willing to accept the responsibility of supervising the work.

**7 - Thesis**

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

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

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

7.4 The thesis shall comply with the following requirements:

- \* a significant proportion of the work described (as determined by the Faculty Research Committee) must have been carried out subsequent to initial registration for the Masters degree.

- \* it must describe a program of work carried out by the candidate and must involve either an advanced contribution to the knowledge of the subject or an advanced application of existing knowledge.

- \* it must reach a satisfactory standard of literary presentation.

- \* it shall be the candidate's own account of the work. Where

work is carried out conjointly with other persons, the Faculty Research Committee shall be advised of the extent of the candidate's contribution to the joint work.

- \* the thesis shall not contain as its main content any work or material which the candidate has previously submitted for another degree or similar award.

- \* the thesis may consist primarily of reports, plans and/or documents or may be supported by these if they have a bearing on the subject of the thesis. Other supporting documents such as published papers may also be submitted with the thesis.

- \* the thesis shall contain an abstract of not more than 300 words.

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

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

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

7.8 Except where confidentiality of the thesis is necessary, students shall submit their thesis electronically after completion of the examination process and any corrections required to the QUT Library for inclusion in the Australian Digital Thesis Project.

**8 - Examination of Thesis**

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

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

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

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

- (a) recommend that the thesis be accepted without modification, and to Academic Board that the candidate be awarded the degree, or

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

- (c) recommend that the thesis not be accepted until major revisions have been made. Such revisions might be rewriting one of the sections, with or without additional work, or

- (d) not accept the thesis and terminate the candidate's registration.

8.5 If the examiners' reports are conflicting, the Faculty Research Committee may, after appropriate consultation with the Thesis Panel, resubmit the thesis to the examiners with copies of the examiners' reports and/or seek the advice

of a further external examiner. After due consideration of further reports from the examiners, a majority decision will be accepted by the Faculty Research Committee.

### **Further Information**

The Faculty of Built Environment and Engineering: Phone +61 7 3138 1424, Fax +61 7 3138 8381,  
e-mail: [bee.research@qut.edu.au](mailto:bee.research@qut.edu.au)  
WEB address: <http://www.bee.qut.edu.au/research>

### **Potential Careers:**

Architect , Art Project Manager, Artist, Community Education Officer, Community Worker, Construction Manager, Contract Administrator, Environmental Health Officer, Exchange Student, Industrial Designer, Landscape Architect, Manager, Medical Equipment Sales, Project Developer, Project Manager, Property Development, Property Economist, Public Servant, Quantity Surveyor, Real Estate, Secondary School Teacher, Teacher, Urban and Regional Planner, Urban Designer.

## Master of Engineering (BN72)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 003465J

**Course duration (full-time):** 1 year (minimum), 2 years (maximum)

**Course duration (part-time):** 2 years (minimum), 4 years (maximum)

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2010: \$12,000 per semester (indicative)

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** At any time

**International Entry:** At any time

**Campus:** Gardens Point

### Entry Requirements

A four-year degree in an appropriate discipline with Honours or equivalent qualification or a graduate diploma or masters degree in an appropriate discipline with a minimum grade point average of 5 with relevant experience or professional experience and/or other qualifications.

### Part-time Study

QUT advises that International Students may only enrol in full-time studies.

### Overview

This research program for professional engineers equips you to solve complex industrial problems. The program is available in Civil, Electrical and Electronic Systems, Mechanical, Manufacturing and Medical Engineering. In completing the course you apply yourself to real-world problems in a research project which usually be sponsored by industry, government authorities, professional organisations or QUT. You can enhance your preparation for the research project by completing coursework units as part of your program. Master of Research studies normally include:

- \* assessed coursework
- \* participation in university scholarly activities such as research seminars, teaching and publication
- \* regular meetings with supervisors
- \* a program of supervised research and investigation
- \* preparation of a thesis.

### Fees

Australian students enrolling after August 31 2000 in a higher degree by research are subject to the conditions of the Commonwealth Government's Research Training Scheme (RTS). Research Students who enrol at QUT will be awarded an RTS place, which is funded by the Commonwealth, or a QUT Research Training Award Scheme (RTA) place, which is a fee remission scholarship.

Research Masters students are entitled to two years full-time equivalent study under these schemes. Students who exceed this entitlement may apply to QUT for an extension, however the University may charge fees for the period of

the program which exceeds the student's entitlement. The University determines the fee level.

### HDR Director

Professor Mahen Mahenrdran

Phone: +61 7 3138 2543

fax: +61 7 3138 1515

### Course Information and Notes

Please consult notes for BN71 Master of Applied Science for course information and requirements.

### Further Information

The Faculty of Built Environment and Engineering: Phone +61 7 3138 1424, Fax +61 7 3138 8381,

e-mail: [bee.research@qut.edu.au](mailto:bee.research@qut.edu.au)

WEB address: <http://www.bee.qut.edu.au/research>

### Potential Careers:

Aerospace Avionics Engineer, Biomechanical Engineer, Biomedical Engineer, Civil Engineer, Electrical and Computer Engineer, Electrical Engineer, Environmental Engineer, Exchange Student, Government Officer, Hydrogeologist, Industrial Designer, Information Security Specialist, Instrument Maker, Manager, Manufacturer, Mastering Engineer, Mechanical Engineer, Medical Engineer, Medical Equipment Sales, Medical Imaging Technologist, Network Manager, Programmer, Recording Engineer, Rehabilitation Engineer, Rehabilitation Professionals, Software Engineer, Systems Analyst, Teacher.



## Graduate Certificate In Built Environment and Engineering (BN85)

Year offered: 2010

Admissions: Yes

CRICOS code: 060808G

Course duration (full-time): 1 semester

Course duration (part-time): 2 semesters

Domestic fees (indicative): 2010: Full fee tuition \$11,000 (indicative) per semester

International Fees (indicative): 2010: \$11,000 (indicative) per semester

Domestic Entry: February and July

International Entry: February and July

Total credit points: 48

Standard credit points per full-time semester: 48

Course coordinator: Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)

Discipline coordinator: Associate Professor Bambang Trigunaryah (Course Leader) - Please refer course specific enquiries to Course Leader.

Campus: Gardens Point

### Overview

This course serves as a preparation and pathway program for students wishing to enter a masters program in the Faculty of Built Environment and Engineering. It is particularly aimed at students with either a three-year undergraduate degree, or a degree in a different area to the masters of their choice.

### Entry Requirements

A four-year full-time bachelor degree in a relevant discipline area; or a three-year full-time diploma and three or more years of relevant professional experience in a relevant discipline; and a grade point average of 5.0 or more (on a 7-point scale) in that study, or an equivalent qualification determined by the Faculty. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

### Career Outcomes

The Graduate Certificate in Built Environment and Engineering does not provide any specific career path. It is offered only as an alternative entry pathway to masters courses in the Faculty of Built Environment and Engineering.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Special Note

The course structures are divided into two major categories: Standard program and UD50 Articulation program.

All students, except those intending to advance to UD50

Masters of Urban Development (Urban and Regional Planning), must follow the standard program.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: bee.enquiries@qut.com

### Standard Course structure - February Entry and July Entry

#### Full-time Structure - Year 1, Semester 1

BEE Undergraduate Unit 1

BEE Undergraduate Unit 2

Other Faculty Postgraduate Unit A

Other Faculty Postgraduate Unit B

All units to be approved by Postgraduate Coordinator prior to enrolment.

#### Part-time Structure

A part-time course structure will require completion of 1 BEE undergraduate level unit and 1 Other Faculty postgraduate level elective unit each semester (50% of standard load as above.)

### Postgraduate Level Electives

AMN430	International Logistics Management
EFN420	Introduction To Financial Management
IFP100	Knowledge Transfer and Research Commercialisation
INN311	Enterprise Systems
INN221	Technology Management
KIP401	Visual Communication
MGN447	Managing in a Globalised Economy
MGN423	Contemporary Strategic Analysis
PUN001	Contemporary Risk Management
PUN301	Occupational Health and Safety Law and Management
PUN500	Safety Management
PUP415	Occupational Health

Or consult with BN85 Course Leader.

(Other suitable postgraduate units will be continually identified during course development.)

### Undergraduate Level Electives

#### Suitable for BN87 path.

BSB115	Management
ENB333	Operations Management
ENB336	Industrial Engineering
ENB432	Engineering Asset Management and Maintenance

Or consult with BN87 Course Leader.

## Suitable for BN88 path.

- ENB432 Engineering Asset Management and Maintenance
- BEB114 Project Financing
- UDB104 Urban Development Economics
- UDB316 Cost Planning and Control  
Or consult with BN88 Course Leader.

## Suitable for BN89 path.

- BEB110 Organising and Managing Project Team
- BEB111 Managing Project Quality
- BEB114 Project Financing
- UDB213 Construction Estimating
- UDB312 Contract Administration
- UDB313 Programming and Scheduling
- UDB316 Cost Planning and Control
- UDB410 Construction Management
- CNB402 Investment Theory  
(CNB402 discontinued end 2009)  
Or consult with BN89 Course Leader.

## Suitable for DE50 path.

- BEB902 Greening the Built Environment
- BEB903 Greenhouse Solutions
- BEB904 Eco-Innovation for Sustainability
- DAB325 Architecture in the 20th Century
- DAB525 Architecture and the City
- CLB110 Environment and Society  
OR
- HHB127 Environment And Society  
(HHB127 discontinued end 2009)
- NRB600 Sustainable Environmental Management  
(NRB600 discontinued end 2009)  
Or consult with DE50 Course Leader.  
[BEB902, DAB325, and DAB525 are the most suitable.]

## Suitable for EN50 path.

### MOST SUITABLE:

- ENB301 Instrumentation and Control
  - ENB342 Signals, Systems and Transforms
- MECHANICAL ENGINEERING ORIENTED:
- ENB311 Stress Analysis
  - ENB312 Dynamics of Machinery
- ELECTRICAL ENGINEERING ORIENTED:
- ENB350 Real-time Computer-based Systems
  - ENB352 Communication Environments For Embedded Systems
- Or consult with EN50 Course Leader.  
[Note: Some of these units have prerequisites

which you will need to offer equivalencies for from your previous degree/s.]

## UD50 Articulation Course structure - February Entry and July Entry

### Full-time Structure - Year 1, Semester 1

Select 4 units from the list below:

- UDN551 History of the Built Environment
- UDN552 Population and Urban Studies
- UDN553 Site Planning
- UDN554 Planning Processes and Consultations
- UDN555 Development Assessment and Infrastructure
- UDN556 Development Process
- UDN557 Urban Design
- UDN558 Regional and Metropolitan Policy

### Part-time Structure

A part-time course structure will require completion of 2 units (50% of standard load as above.)

## Master of Engineering Management (BN87)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 006368G

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2010: Full fee tuition \$9,000 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)

**Discipline coordinator:** Dr Jacob Coetzee (Course Leader) - Please refer course specific enquiries to Course Leader.

**Campus:** Gardens Point

### Overview

This course offers an engineering management qualification to practising engineers through a formal qualification in management with advanced engineering skills and knowledge. You can choose to specialise in manufacturing or maintenance engineering. Early exit with a Graduate Diploma is available upon completion of two core units and two specialisation units in the course.

### Entry Requirements

A four-year full-time bachelor degree in a relevant engineering discipline area and a grade point average of 5.0 or more (on a 7-point scale) in that study, or an equivalent qualification determined by the Faculty. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language. Applicants from a non-relevant background may gain entry through successful completion of BN85, the Graduate Certificate in Built Environment and Engineering.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

### Career Outcomes

The Master of Engineering Management allows graduates to become specialist engineering managers within their chosen professional field, particularly to become a leader and manager of engineering processes. Graduates can also use the skills and knowledge gained to diversify their capabilities across a broader spectrum of engineering disciplines.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Advanced Standing

Students completing two Masters courses in the Faculty of Built Environment and Engineering will be eligible to apply for a maximum of 24 credit points advanced standing in the second course on the basis of common units already completed. Such students will be required to complete a minimum of 72cp to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - February Entry

#### Year 1, Semester 1

BEN610	Project Management Principles
ENN510	Engineering Knowledge Management
ENN515	Total Quality Management
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
BEN910	Integrated Project
ENN530	Asset and Facility Management
ENN570	Enterprise Resource Planning

### Full-time Course structure - Mid Year Entry

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
ENN530	Asset and Facility Management
ENN570	Enterprise Resource Planning
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

#### Year 2, Semester 1

BEN610	Project Management Principles
BEN910	Integrated Project
ENN510	Engineering Knowledge Management
ENN515	Total Quality Management

### Part-time Course Structure - February Entry

#### Year 1, Semester 1

BEN610	Project Management Principles
ENN510	Engineering Knowledge Management

#### Year 1, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering

ENN530 Asset and Facility Management

## Year 2, Semester 1

ENN515 Total Quality Management

AMN435 Communication, Negotiation and Leadership  
OR

GSN235 Communication, Negotiation and Leadership

## Year 2, Semester 2

BEN910 Integrated Project

ENN570 Enterprise Resource Planning

## Part-time Course structure - Mid-year Entry

### Year 1, Semester 2

ENN530 Asset and Facility Management

ENN570 Enterprise Resource Planning

### Year 2, Semester 1

BEN610 Project Management Principles

ENN510 Engineering Knowledge Management

### Year 2, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering

AMN435 Communication, Negotiation and Leadership  
OR

GSN235 Communication, Negotiation and Leadership

### Year 3, Semester 1

BEN910 Integrated Project

ENN515 Total Quality Management

## Master of Infrastructure Management (BN88)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 060807G

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2010: Full fee tuition \$8,750 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)

**Discipline coordinator:** Associate Professor Bambang Trigunaryah (Course Leader) - Please refer course specific enquiries to Course Leader.

**Campus:** Gardens Point

### Overview

This course addresses the main concepts and methodologies of infrastructure planning and management. It aims to advance and enhance your skills and understanding of the diverse types of infrastructure assets planning and management, including the environmental, social, institutional assessments, and economic and financial aspects of infrastructure management. Early exit with a Graduate Diploma is available upon completion of two core units and two specialisation units in the course.

### Entry Requirements

A four-year full-time bachelor degree in a relevant discipline area; or an equivalent qualification, and a grade point average of 5.0 or more (on a 7-point scale) in that study, or an equivalent qualification determined by the Faculty. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language. Applicants from a non-relevant background may gain entry through successful completion of BN85, the Graduate Certificate in Built Environment and Engineering.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

### Career Outcomes

Graduates may choose to become a project manager, asset manager, planner within an infrastructure organisation, or use the skills and knowledge gained to diversify their capabilities across a broader spectrum of construction disciplines. In particular, this course provides graduates with the skills and knowledge to become leaders and managers of infrastructure planning and management.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Advanced Standing

Students completing two Masters courses in the Faculty of Built Environment and Engineering will be eligible to apply for a maximum of 24 credit points advanced standing in the second course on the basis of common units already completed. Such students will be required to complete a minimum of 72cp to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - February Entry

#### Year 1, Semester 1

BEN610	Project Management Principles
UDN572	Infrastructure Planning and Management
UDN574	Water Resource and Waste Management
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
BEN910	Integrated Project
ENN530	Asset and Facility Management
UDN576	Transportation Infrastructure

### Full-time Course structure - Mid Year Entry

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
ENN530	Asset and Facility Management
UDN576	Transportation Infrastructure
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

#### Year 2, Semester 1

BEN610	Project Management Principles
BEN910	Integrated Project
UDN572	Infrastructure Planning and Management
UDN574	Water Resource and Waste Management

### Part-time Course structure - February Entry

#### Year 1, Semester 1

BEN610 Project Management Principles  
UDN572 Infrastructure Planning and Management

## Year 1, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering  
ENN530 Asset and Facility Management

## Year 2, Semester 1

UDN574 Water Resource and Waste Management  
AMN435 Communication, Negotiation and Leadership  
OR  
GSN235 Communication, Negotiation and Leadership

## Year 2, Semester 2

BEN910 Integrated Project  
UDN576 Transportation Infrastructure

### Part-time Course structure - Mid Year Entry

## Year 1, Semester 2

ENN530 Asset and Facility Management  
UDN576 Transportation Infrastructure

## Year 2, Semester 1

BEN610 Project Management Principles  
UDN572 Infrastructure Planning and Management

## Year 2, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering  
AMN435 Communication, Negotiation and Leadership  
OR  
GSN235 Communication, Negotiation and Leadership

## Year 3, Semester 1

BEN910 Integrated Project  
UDN574 Water Resource and Waste Management

### Potential Careers:

Manager.



## Master of Project Management (BN89)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 060815G

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2010: Full fee tuition \$9,000 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)

**Discipline coordinator:** Associate Professor Bambang Trigunarsyah (Course Leader) - Please refer course specific enquiries to Course Leader.

**Campus:** Gardens Point

### Overview

This course is designed to provide you with appropriate knowledge and experience in managing projects in professional organisations. It addresses the main concepts and methodologies of project management and provides you with educational opportunities for advanced study following your graduation in a relevant discipline. This course aims to produce project managers capable of ensuring project success through the management of constraints in time, cost and quality, as well as of social, political and environmental challenges. Early exit with a Graduate Diploma is available upon completion of two core units and two specialisation units in the course.

### Entry Requirements

A four-year full-time bachelor degree in a relevant discipline area; and a grade point average of 5.0 or more (on a 7-point scale) in that study, or an equivalent qualification determined by the Faculty. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language. Applicants from a non-relevant background may gain entry through successful completion of BN85, the Graduate Certificate in Built Environment and Engineering.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

### Career Outcomes

Graduates will have the necessary expertise to take on managerial roles in projects of their chosen profession. They will have acquired professional experience which will enable them to manage project goals within constraints, contribute to strategic decision making through understanding a range of specialty areas relevant to project management. They will also make a difference to professional practice by introducing project-based practices and a project management approach.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Advanced Standing

Students completing two Masters courses in the Faculty of Built Environment and Engineering will be eligible to apply for a maximum of 24 credit points advanced standing in the second course on the basis of common units already completed. Such students will be required to complete a minimum of 72cp to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - February Entry

#### Year 1, Semester 1

BEN610	Project Management Principles
UDN590	Project Scope and Risk Management
UDN592	Resource, Schedule and Performance Management
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
BEN910	Integrated Project
UDN594	Procurement and Delivery Strategies
UDN596	Human Resource and Organisational Culture

### Full-time Course structure - Mid Year Entry

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
UDN594	Procurement and Delivery Strategies
UDN596	Human Resource and Organisational Culture
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

#### Year 2, Semester 1

BEN610	Project Management Principles
BEN910	Integrated Project
UDN590	Project Scope and Risk Management
UDN592	Resource, Schedule and Performance Management

### Part-time Course structure - February Entry

## Year 1, Semester 1

- BEN610 Project Management Principles
- UDN590 Project Scope and Risk Management

## Year 1, Semester 2

- UDN594 Procurement and Delivery Strategies
- UDN596 Human Resource and Organisational Culture

## Year 2, Semester 1

- UDN592 Resource, Schedule and Performance Management
- AMN435 Communication, Negotiation and Leadership  
OR
- GSN235 Communication, Negotiation and Leadership

## Year 2, Semester 2

- BEN710 Sustainable Practice in Built Environment and Engineering
- BEN910 Integrated Project

### Part-time Course structure - Mid Year Entry

## Year 1, Semester 2

- UDN594 Procurement and Delivery Strategies
- UDN596 Human Resource and Organisational Culture

## Year 2, Semester 1

- BEN610 Project Management Principles
- UDN590 Project Scope and Risk Management

## Year 2, Semester 2

- BEN710 Sustainable Practice in Built Environment and Engineering
- AMN435 Communication, Negotiation and Leadership  
OR
- GSN235 Communication, Negotiation and Leadership

## Year 3, Semester 1

- BEN910 Integrated Project
- UDN592 Resource, Schedule and Performance Management

### Potential Careers:

Project Manager.

**Associate Degree in Civil Engineering/Bachelor of Technology (Civil) (CE35)**

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 049435B

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2009: CSP \$3,568 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** This course is no longer offered

**Past rank cut-off:** 50

**Past OP cut-off:** 24

**Total credit points:** 288

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Fraser McGregor

**Campus:** Gardens Point

MAB233 Engineering Mathematics 3

**Electives - Semester 2**

ENB371 Geotechnical Engineering 2

ENB376 Transport Engineering

ENB377 Water and Waste Water Treatment Engineering

**Potential Careers:**

Engineering Technologist, Technical Officer.

**Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

**Further Information**

Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

**Course structure**

**Year 2 - Semester 1**

ENB273 Civil Materials

SCB110 Science Concepts and Global Systems

**Year 2 - Semester 2**

ENB276 Structural Engineering 1

**Year 3 - Semester 1**

ENB271 Design of Structural Timber and Earthworks

ENB272 Geotechnical Engineering 1

BEB801 Project 1

One Elective from list below

**Year 3 - Semester 2**

ENB201 Fluid Mechanics

One Elective from list below

ENB274 Design of Environmentally Sustainable Systems

HECEA205 Municipal Engineering (at Southbank Institute of Technology)

**Electives - Semester 1**

ENB375 Structural Engineering 2

ENB378 Water Engineering

## **Bachelor of Engineering (Civil) (CE44)**

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative)  
per semester

**International Fees (indicative):** 2010: \$12,000 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412502

**Past rank cut-off:** 80. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Fraser McGregor

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further Information**

Phone +61 7 3138 2678, Fax +61 7 3138 1515, email:  
bee.enquiries@qut.com

### **Potential Careers:**

Civil Engineer, Environmental Engineer.

## **Bachelor of Engineering (Civil and Environmental Management) (CE46)**

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412502

**Past rank cut-off:** 80. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Fraser McGregor

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further Information**

Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### **Potential Careers:**

Civil Engineer, Environmental Engineer.

**Bachelor of Applied Science  
(Construction Management) (CN51)**

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative)  
per semester

**International Fees (indicative):** 2010: \$11,000 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students  
only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing  
students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412312

**Past rank cut-off:** 75. Admission to this course is based on  
prior study entry requirements in addition to a rank. Please  
refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr John Hayes

**Discipline coordinator:** Dr Vaughan Coffey

**Campus:** Gardens Point

**Special Note**

This course has been discontinued. Any remaining students  
should seek advice from the Course Coordinator regarding  
their remaining course program.

**Further Information**

Phone +61 7 3138 2678, Fax +61 7 3138 1515, email:  
bee.enquiries@qut.com

**Potential Careers:**

Construction Manager, Estimator, Project Manager.



## Bachelor of Applied Science (Quantity Surveying) (CN53)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412332

**Past rank cut-off:** 72. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr John Hayes

**Discipline coordinator:** Dr Johnny Wong

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### Further Information

Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Estimator, Manager, Quantity Surveyor.

## Bachelor of Property Economics (CN54)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$10,250 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412322

**Past rank cut-off:** 77. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384, or 288 for 3 years early exit option

**Course coordinator:** Dr John Hayes

**Discipline coordinator:** Dr Bwembya Chikolwa

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Leader regarding their remaining course program.

### Further Information

Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Project Developer, Project Manager, Property Development, Property Economist, Property Management, Real Estate.

## Master of Project Management (CN77)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2009: Full fee tuition \$8,000 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2007.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2007.

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Jay Yang (Please refer all course enquiries to Course Leader.)

**Discipline coordinator:** Associate Professor Bambang Trigunaryah (Course Leader)

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Leader regarding their remaining course program.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Construction Manager, Government Officer, Manager, Project Developer, Project Manager, Property Economist.

## Graduate Certificate in Project Management (CN81)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 1 semester

**Course duration (part-time):** 1 year

**Domestic fees (indicative):** 2009: Full fee tuition \$6,750 (indicative) per semester

**International Fees (indicative):** 2009: \$10,250 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2007.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2007.

**Total credit points:** 48

**Standard credit points per part-time semester:** 24

**Course coordinator:** Associate Professor Jay Yang (Please refer all course enquiries to Course Leader.)

**Discipline coordinator:** Associate Professor Bambang Trigunaryah (Course Leader)

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Leader regarding their remaining course program.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Project Developer, Project Manager, Property Economist.

## Master of Property Economics (CN92)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 1.5 years

**Course duration (part-time):** 3 years

**Domestic fees (indicative):** 2010: Full fee tuition \$7,100 (indicative) per semester

**International Fees (indicative):** 2010: \$10,750 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2007.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2007.

**Total credit points:** 144

**Standard credit points per full-time semester:** 48

**Course coordinator:** Professor Jay Yang (Please refer all course enquiries to Course Leader.)

**Discipline coordinator:** Associate Professor Bambang Trigunarsyah (Course Leader)

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Leader regarding their remaining course program.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Project Developer, Property Development, Property Economist, Property Management.

## **Bachelor of Design (DE40)**

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056386C

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,784 (indicative)  
per semester

**International Fees (indicative):** 2010: \$11,000 (indicative)  
per semester

**Domestic Entry:** February

**International Entry:** February

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mr Andrew Scott (as of July 2010 -  
previously Ms Sheona Thomson)



## Bachelor of Design (Architectural Studies) (DE40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056386C

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,784 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 412372

**Past rank cut-off:** 92

**Past OP cut-off:** 5

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mr Andrew Scott (as of July 2010 - previously Ms Sheona Thomson)

**Discipline coordinator:** Mr Paul Sanders

**Campus:** Gardens Point

### Career Outcomes

The Bachelor of Design (Architectural Studies) is a four-year full-time pre-professional degree in architecture. Graduates of this course may articulate into the Master of Architecture.

Architects design buildings, provide concepts, specifications, detailed drawings and plans. They oversee construction, negotiate with planning authorities and inspect the work in progress. They are required to have design skills and technical knowledge of materials and processes used in construction. Architects can be employed in general practice or choose to specialise. Some of the specialisations available are commercial, industrial and institutional developments, historic building conservation and housing renovation. They can also be involved in project feasibility studies and strategic asset investigations. Architecture embraces art, technology and service. Architects play a leading role in interdisciplinary teams to solve problems of the built environment. A Bachelor of Architecture gives graduates exciting career choices and the opportunity to travel and work in Australia or overseas.

### Overview

Design is the focus of this course; these studies are supported by studies in architectural technology, history and culture of architecture, ethical and legislative frameworks, and the study of architecture in practice.

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who

successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Professional Recognition

This course received a successful Preliminary Assessment by the RAI/AACA/Board of Architects of Queensland in 2006. This is the first step in a three-stage process to obtain full recognition and accreditation. Full accreditation will occur in 2010 when the first cohort graduates from the Master of Architecture (DE80).

### Second majors and minors

You will be able to select from two 4 unit approved minors or one 8 unit approved second major to enhance and broaden your knowledge in a related field or area of interest. Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/>

### ARCHITECTURAL STUDIES Second Major and Minor Options

Second Major:

A 2nd major from anywhere in QUT.

Minors:

A minor from anywhere in QUT.

Please remember that one minor must be from outside of your course.

(Design students interested in enrolling in the BEE Applications minor, must first consult and obtain approval from the Subject Area Coordinator/Course Coordinator.)

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

The School of Design - Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Course structure - Commencing February 2010

## Year 1 - Semester 1

DEB100	Introducing Professional Learning
DAB110	Architectural Design 1
DEB101	Introducing Design
DEB102	Introducing Design History

## Year 1 - Semester 2

DEB200	Introducing Sustainability
DAB210	Architectural Design 2
DAB220	Placemaking in Architecture
DEB201	Digital Communication

## Year 2 - Semester 1

DAB310	Architectural Design 3
DAB325	Architecture in the 20th Century
DAB330	Integrated Technologies 1 Second Major/Minor unit

## Year 2 - Semester 2

DAB410	Architectural Design 4
DAB420	Architecture, Culture and Space
DAB435	Architectural Technology 1 Second Major/Minor unit

## Year 3 - Semester 1

DAB510	Architectural Design 5
DAB525	Architecture and the City
DAB530	Integrated Technologies 2 Second Major/Minor unit

## Year 3 - Semester 2

DAB610	Architectural Design 6
DAB635	Architectural Technology 2
DEB601	Collaborative Design Second Major/Minor unit

## Year 4 - Semester 1

DAB710	Architectural Design 7
DEB701	Design and Research Second Major/Minor unit Second Major/Minor unit

## Year 4 - Semester 2

DAB810	Architectural Design 8
DEB801	Professional Practice Second Major/Minor unit Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

**Course structure - Commencing February 2006 - 2009**

## Year 1 - Semester 1

BEB100	Introducing Professional Learning
DAB110	Architectural Design 1
DEB101	Introducing Design
DEB102	Introducing Design History

## Year 1 - Semester 2

BEB200	Introducing Sustainability
DAB210	Architectural Design 2
DAB220	Placemaking in Architecture
DEB201	Digital Communication

## Year 2 - Semester 1

DAB310	Architectural Design 3
DAB325	Architecture in the 20th Century
DAB330	Integrated Technologies 1 Second Major/Minor unit

## Year 2 - Semester 2

DAB410	Architectural Design 4
DAB420	Architecture, Culture and Space
DAB435	Architectural Technology 1 Second Major/Minor unit

## Year 3 - Semester 1

DAB510	Architectural Design 5
DAB525	Architecture and the City
DAB530	Integrated Technologies 2 Second Major/Minor unit

## Year 3 - Semester 2

DAB610	Architectural Design 6
DAB635	Architectural Technology 2
DEB601	Collaborative Design Second Major/Minor unit

## Year 4 - Semester 1

DAB710	Architectural Design 7
DEB701	Design and Research Second Major/Minor unit Second Major/Minor unit

## Year 4 - Semester 2

DAB810	Architectural Design 8
DEB801	Professional Practice Second Major/Minor unit Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

**Potential Careers:**

Architect.

## Bachelor of Design (Industrial Design)

### (DE40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056386C

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,784 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 412382

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mr Andrew Scott (as of July 2010 - previously Ms Sheona Thomson)

**Discipline coordinator:** Dr Marianella Chamorro-Koc (as of July 2010 - previously Mr Andrew Scott)

**Campus:** Gardens Point

### Career Outcomes

Industrial designers create and produce commercial and industrial products to improve people's lives. They make models and prototypes of designs that cover a wide range of manufactured goods from toasters to computer terminals to rapid transport systems. When designing new or improving existing products they must consider factors influencing product design such as useability, costs, materials, technology or environment. They research product usage, make detailed drawings and supervise the construction of prototypes for testing. They mainly work in small business or consulting practices. QUT Industrial Design graduates are working worldwide in places such as the UK, Singapore and France.

### Overview

Students in this course develop their capacity to contribute to the design of products and systems for the mutual benefit of users and manufacturers of a wide range of products.

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Professional Recognition

The Bachelor of Design (Industrial Design) is recognised by DIA (Design Institute of Australia). Graduates of this course are eligible for DIA Membership. Industrial Design QUT is also an Educational member of ICSID (International Council of Societies of Industrial Design).

### Second majors and minors

You will be able to select from two 4 unit approved minors or one 8 unit approved second major to enhance and broaden your knowledge in a related field or area of interest. Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/>

### INDUSTRIAL DESIGN Second Major and Minor Options

**Second Major:**

A 2nd major from anywhere in QUT.

**Minors:**

A minor from anywhere in QUT.

Please remember that one minor must be from outside of your course.

(Design students interested in enrolling in the BEE Applications minor, must first consult and obtain approval from the Subject Area Coordinator/Course Coordinator .)

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

The School of Design - Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Course structure - Commencing February 2010

#### Year 1 - Semester 1

DEB100	Introducing Professional Learning
DEB101	Introducing Design
DEB102	Introducing Design History
DNB101	Industrial Design 1

#### Year 1 - Semester 2

DEB200	Introducing Sustainability
DEB201	Digital Communication
DNB201	Industrial Design 2
DNB202	Product Usability

#### Year 2 - Semester 1

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

DNB301	Industrial Design 3
DNB302	Computer Aided Industrial Design
DNB303	Manufacturing Technology
	Second Major/Minor unit

## Year 2 - Semester 2

DNB401	Industrial Design 4
DNB402	Socio-cultural Studies
	Second Major/Minor unit
	Second Major/Minor unit

## Year 3 - Semester 1

DNB501	Industrial Design 5
DNB502	Industrial Design History, Theory and Criticism
	Second Major/Minor unit
	Second Major/Minor unit

## Year 3 - Semester 2

DEB601	Collaborative Design
DNB601	Industrial Design 6
DNB602	New Product Development
	Second Major/Minor unit

## Year 4 - Semester 1

DEB701	Design and Research
DNB701	Industrial Design 7
DNB702	Human-centred Design Innovation
	Second Major/Minor unit

## Year 4 - Semester 2

DEB801	Professional Practice
DNB801	Research and Innovation 1
DNB802	Research and Innovation 2
	Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Course structure - Commencing February 2006 - 2009

### Year 1 - Semester 1

BEB100	Introducing Professional Learning
DEB101	Introducing Design
DEB102	Introducing Design History
DNB101	Industrial Design 1

### Year 1 - Semester 2

BEB200	Introducing Sustainability
DEB201	Digital Communication
DNB201	Industrial Design 2
DNB202	Product Usability

## Year 2 - Semester 1

DNB301	Industrial Design 3
DNB302	Computer Aided Industrial Design
DNB303	Manufacturing Technology
	Second Major/Minor unit

## Year 2 - Semester 2

DNB401	Industrial Design 4
DNB402	Socio-cultural Studies
	Second Major/Minor unit
	Second Major/Minor unit

## Year 3 - Semester 1

DNB501	Industrial Design 5
DNB502	Industrial Design History, Theory and Criticism
	Second Major/Minor unit
	Second Major/Minor unit

## Year 3 - Semester 2

DEB601	Collaborative Design
DNB601	Industrial Design 6
DNB602	New Product Development
	Second Major/Minor unit

## Year 4 - Semester 1

DEB701	Design and Research
DNB701	Industrial Design 7
DNB702	Human-centred Design Innovation
	Second Major/Minor unit

## Year 4 - Semester 2

DEB801	Professional Practice
DNB801	Research and Innovation 1
DNB802	Research and Innovation 2
	Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Potential Careers:

Industrial Designer.



## Bachelor of Design (Interior Design) (DE40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056386C

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,784 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 412362

**Past rank cut-off:** 88

**Past OP cut-off:** 7

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mr Andrew Scott (as of July 2010 - previously Ms Sheona Thomson)

**Discipline coordinator:** Mr Paul Smith (as of June 2010 - previously A/Prof Mark Taylor)

**Campus:** Gardens Point

### Careers Outcomes

Interior designers plan and execute the layout, finishes, lighting, fittings and furnishings in domestic interior design, retail and entertainment industry design, hospitality industry design, commercial office and corporate design. Interior designers may work as consultants or with a design company. They may also seek work involving production design for film, television and theatre as well as furniture and exhibition design. There is a trend for Australian interior design companies to practice in South-East Asia and bid competitively for international commissions.

### Overview

Students undertaking this course receive a general background in studies in built environment combined with a series of experience exercises relating to basic design & specifically to interior design.

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Professional Recognition

Successful completion of the Bachelor of Design (Interior Design) is recognised by the Design Institute of Australia as meeting the basic requirements for professional practice.

### Second majors and minors

You will be able to select from two 4 unit approved minors or one 8 unit approved second major to enhance and broaden your knowledge in a related field or area of interest. Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/> .

### INTERIOR DESIGN Second Major and Minor Options

Second Major:

A 2nd major from anywhere in QUT.

Minors:

A minor from anywhere in QUT.

Please remember that one minor must be from outside of your course.

(Design students interested in enrolling in the BEE Applications minor, must first consult and obtain approval from the Subject Area Coordinator/Course Coordinator .)

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

The School of Design - Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Course structure - Commencing February 2010

#### Year 1 - Semester 1

DEB100	Introducing Professional Learning
DEB101	Introducing Design
DEB102	Introducing Design History
DTB101	Interior Design 1

#### Year 1 - Semester 2

DEB200	Introducing Sustainability
DEB201	Digital Communication
DTB201	Interior Design 2



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

DTB202 Design Technology

## Year 2 - Semester 1

DTB301 Interior Design 3

DTB302 Colour Studies

DTB303 Technical Design

Second Major/Minor unit

## Year 2 - Semester 2

DTB401 Interior Design 4

DTB402 Interior Systems

DTB403 Human Environment

Second Major/Minor unit

## Year 3 - Semester 1

DTB501 Interior Design 5

DTB502 Environments in Transition

DTB503 Furniture Studies

Second Major/Minor unit

## Year 3 - Semester 2

DEB601 Collaborative Design

DTB601 Interior Design 6

DTB602 Design in Society

Second Major/Minor unit

## Year 4 - Semester 1

DEB701 Design and Research

DTB701 Interior Design 7

Second Major/Minor unit

Second Major/Minor unit

## Year 4 - Semester 2

DEB801 Professional Practice

DTB801 Interior Design 8

Second Major/Minor unit

Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Course structure - Commencing February 2006 - 2009

### Year 1 - Semester 1

BEB100 Introducing Professional Learning

DEB101 Introducing Design

DEB102 Introducing Design History

DTB101 Interior Design 1

### Year 1 - Semester 2

BEB200 Introducing Sustainability

DEB201 Digital Communication

DTB201 Interior Design 2

DTB202 Design Technology

## Year 2 - Semester 1

DTB301 Interior Design 3

DTB302 Colour Studies

DTB303 Technical Design

Second Major/Minor unit

## Year 2 - Semester 2

DTB401 Interior Design 4

DTB402 Interior Systems

DTB403 Human Environment

Second Major/Minor unit

## Year 3 - Semester 1

DTB501 Interior Design 5

DTB502 Environments in Transition

DTB503 Furniture Studies

Second Major/Minor unit

## Year 3 - Semester 2

DEB601 Collaborative Design

DTB601 Interior Design 6

DTB602 Design in Society

Second Major/Minor unit

## Year 4 - Semester 1

DEB701 Design and Research

DTB701 Interior Design 7

Second Major/Minor unit

Second Major/Minor unit

## Year 4 - Semester 2

DEB801 Professional Practice

DTB801 Interior Design 8

Second Major/Minor unit

Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Potential Careers:

Interior Designer.

## Bachelor of Design (Landscape Architecture) (DE40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056386C

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,784 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 412342

**Past rank cut-off:** 81

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Mr Andrew Scott (as of July 2010 - previously Ms Sheona Thomson)

**Discipline coordinator:** Dr Jeannie Sim

**Campus:** Gardens Point

### Overview

Landscape Architecture is concerned with the ordered design of open spaces at all scales: the appearance, atmosphere, and suitability of environment to assure its health and welfare and that of its inhabitants. Your course covers landscape theory and design, professional values, environment theory, graphic and other communication, and landscape construction supported by project and field work.

### Career Outcomes

Landscape Architecture is predominantly a young profession with an increasing number of female practitioners. Sixty per cent of the profession is employed in private consultancies of landscape architects, architects, planners, urban designers and engineers. They are engaged primarily in site planning, site design, planting design and, to a lesser degree, landscape planning. Other opportunities for employment occur in the design sectors of government agencies. Some graduates work freelance on a contractual basis.

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Professional Recognition

This course has accreditation from the Australian Institute of Landscape Architects (AILA). Graduates can apply for membership of this professional organisation.

### Second majors and minors

You will be able to select from two 4 unit approved minors or one 8 unit approved second major to enhance and broaden your knowledge in a related field or area of interest. Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/>

### LANDSCAPE ARCHITECTURE Second Major and Minor Options

**Second Major:**

A 2nd major from anywhere in QUT.

**Minors:**

A minor from anywhere in QUT.

Please remember that one minor must be from outside of your course.

(Design students interested in enrolling in the BEE Applications minor, must first consult and obtain approval from the Subject Area Coordinator/Course Coordinator.)

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

The School of Design - Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Course structure - Commencing February 2010

#### Year 1 - Semester 1

DEB100	Introducing Professional Learning
DEB101	Introducing Design
DEB102	Introducing Design History
DLB130	Landscape Design 1

#### Year 1 - Semester 2

DEB200	Introducing Sustainability
--------	----------------------------

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

DEB201 Digital Communication  
DLB210 Landscape Design 2  
DLB230 Landscape Horticulture

## Year 2 - Semester 1

DLB310 Landscape Design 3  
DLB330 Landscape Ecology  
Second Major/Minor unit  
Second Major/Minor unit

## Year 2 - Semester 2

DLB410 Landscape Design 4  
DLB430 Landscape Construction 1  
Second Major/Minor unit  
Second Major/Minor unit

## Year 3 - Semester 1

DLB510 Landscape Design 5  
DLB525 History and Criticism of Landscape Design  
DLB530 Landscape Construction 2  
Second Major/Minor unit

## Year 3 - Semester 2

DEB601 Collaborative Design  
DLB630 Landscape Construction 3  
DLB645 Landscape Practice and Law  
Second Major/Minor unit

## Year 4 - Semester 1

DEB701 Design and Research  
DLB710 Landscape Design 6  
DLB730 Landscape Design 7  
Second Major/Minor unit

## Year 4 - Semester 2

DEB801 Professional Practice  
DLB810 Landscape Planning and Policy  
DLB830 Landscape Design 8  
Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Course structure - Commencing February 2006 - 2009

### Year 1 - Semester 1

BEB100 Introducing Professional Learning  
DEB101 Introducing Design  
DEB102 Introducing Design History  
DLB130 Landscape Design 1

### Year 1 - Semester 2

BEB200 Introducing Sustainability  
DEB201 Digital Communication  
DLB210 Landscape Design 2  
DLB230 Landscape Horticulture

### Year 2 - Semester 1

DLB310 Landscape Design 3  
DLB330 Landscape Ecology  
Second Major/Minor unit  
Second Major/Minor unit

### Year 2 - Semester 2

DLB410 Landscape Design 4  
DLB430 Landscape Construction 1  
Second Major/Minor unit  
Second Major/Minor unit

### Year 3 - Semester 1

DLB510 Landscape Design 5  
DLB525 History and Criticism of Landscape Design  
DLB530 Landscape Construction 2  
Second Major/Minor unit

### Year 3 - Semester 2

DEB601 Collaborative Design  
DLB630 Landscape Construction 3  
DLB645 Landscape Practice and Law  
Second Major/Minor unit

### Year 4 - Semester 1

DEB701 Design and Research  
DLB710 Landscape Design 6  
DLB730 Landscape Design 7  
Second Major/Minor unit

### Year 4 - Semester 2

DEB801 Professional Practice  
DLB810 Landscape Planning and Policy  
DLB830 Landscape Design 8  
Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Potential Careers:

Landscape Architect.

## Master of Design (Urban Design) (DE50)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 060812M

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2010: Full fee tuition \$8,250 (indicative) per semester

**International Fees (indicative):** 2010: \$11,250 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)

**Discipline coordinator:** Dr Kathi Holt-Damant (Course Leader) - Please refer course specific enquiries to Course Leader.

**Campus:** Gardens Point

### Overview

The Master of Design addresses the issues of professional development in the design fields of built environment and engineering. It aims to enhance and advance your skills and understanding of the design disciplines through explorations in social, historic, economic, legal, and technological processes and systems that act upon our environments and products. This course advances abilities in visual and design literacy, communication, and design processes, through the integration of aspects of sustainability, project management, leadership, and design project applications. Early exit with a Graduate Diploma is available upon completion of two core units and two specialisation units in the course.

### Entry Requirements

A four-year full-time bachelor degree in a relevant discipline area, or equivalent qualification determined by the Faculty, and a grade point average of 5.0 or more (on a 7-point scale) in that study. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language. Applicants from a non-relevant background may gain entry through successful completion of BN85, the Graduate Certificate in Built Environment and Engineering.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Career Outcomes

Graduates may choose to become specialist urban designers within their chosen professional field, or use the skills and knowledge gained to diversify their capabilities

across a broader spectrum of design disciplines. In particular this course provides the skills and knowledge to become a leader and manager of urban design processes, both in the development and implementation of urban design policy and urban design practice. Graduates may typically work in either private practice as urban designers, or in government organisations as urban policy developers and implementers.

### Advanced Standing

Students completing two Masters courses in the Faculty of Built Environment and Engineering will be eligible to apply for a maximum of 24 credit points advanced standing in the second course on the basis of common units already completed. Such students will be required to complete a minimum of 72cp to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - February Entry 2010 onwards

#### Year 1, Semester 1

BEN610	Project Management Principles
DEN510	Urban Design and Theory Studio A
DEN511	Theory Research Project A
AMN435	Communication, Negotiation and Leadership

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
BEN910	Integrated Project
DEN520	Urban Design and Theory Studio B
DEN521	Theory Research Project B

### Full-time Course structure - Mid Year Entry 2010 onwards

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
DEN520	Urban Design and Theory Studio B
DEN521	Theory Research Project B
AMN435	Communication, Negotiation and Leadership

#### Year 2, Semester 1

BEN610	Project Management Principles
BEN910	Integrated Project
DEN510	Urban Design and Theory Studio A
DEN511	Theory Research Project A

### Part-time Course structure - February Entry 2010 onwards

## Year 1, Semester 1

BEN610 Project Management Principles  
DEN510 Urban Design and Theory Studio A

## Year 1, Semester 2

DEN520 Urban Design and Theory Studio B  
DEN521 Theory Research Project B

## Year 2, Semester 1

DEN511 Theory Research Project A  
AMN435 Communication, Negotiation and Leadership

## Year 2, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering  
BEN910 Integrated Project

### Part-time Course structure - Mid Year Entry 2010 onwards

## Year 1, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering  
DEN521 Theory Research Project B

## Year 2, Semester 1

BEN610 Project Management Principles  
DEN510 Urban Design and Theory Studio A

## Year 2, Semester 2

DEN520 Urban Design and Theory Studio B  
AMN435 Communication, Negotiation and Leadership

## Year 3, Semester 1

BEN910 Integrated Project  
DEN511 Theory Research Project A

### Full-time Course structure - February Entry 2008 & 2009

## Year 1, Semester 1

BEN610 Project Management Principles  
DEN510 Urban Design and Theory Studio A  
AMN435 Communication, Negotiation and Leadership  
OR  
GSN235 Communication, Negotiation and Leadership  
UDN510 Urban Planning Practice  
OR  
UDN572 Infrastructure Planning and Management

## Year 1, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering  
BEN910 Integrated Project  
DEN520 Urban Design and Theory Studio B

Choose one of:

UDN512 Community Planning  
UDN514 Regional Planning Practice  
UDN576 Transportation Infrastructure

### Part-time Course structure - February Entry 2008 & 2009

## Year 1, Semester 1

BEN610 Project Management Principles  
DEN510 Urban Design and Theory Studio A

## Year 1, Semester 2

DEN520 Urban Design and Theory Studio B  
Choose one of:  
UDN512 Community Planning  
UDN514 Regional Planning Practice  
UDN576 Transportation Infrastructure

## Year 2, Semester 1

AMN435 Communication, Negotiation and Leadership  
OR  
GSN235 Communication, Negotiation and Leadership  
UDN510 Urban Planning Practice  
OR  
UDN572 Infrastructure Planning and Management

## Year 2, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering  
BEN910 Integrated Project

### Full-time Course structure - Mid Year Entry 2008 & 2009

## Year 1, Semester 2

BEN710 Sustainable Practice in Built Environment and Engineering  
DEN520 Urban Design and Theory Studio B  
AMN435 Communication, Negotiation and Leadership  
OR  
GSN235 Communication, Negotiation and Leadership  
Choose one of:  
UDN512 Community Planning  
UDN514 Regional Planning Practice  
UDN576 Transportation Infrastructure

## Year 2, Semester 1

BEN610 Project Management Principles  
BEN910 Integrated Project  
DEN510 Urban Design and Theory Studio A  
UDN510 Urban Planning Practice  
OR  
UDN572 Infrastructure Planning and Management

### Part-time Course structure - Mid Year Entry 2008 & 2009

**Year 1, Semester 2**

- BEN710 Sustainable Practice in Built Environment and Engineering  
Choose one of:  
UDN512 Community Planning  
UDN514 Regional Planning Practice  
UDN576 Transportation Infrastructure

**Year 2, Semester 1**

- BEN610 Project Management Principles  
DEN510 Urban Design and Theory Studio A

**Year 2, Semester 2**

- DEN520 Urban Design and Theory Studio B  
AMN435 Communication, Negotiation and Leadership  
OR  
GSN235 Communication, Negotiation and Leadership

**Year 3, Semester 1**

- BEN910 Integrated Project  
UDN510 Urban Planning Practice  
OR  
UDN572 Infrastructure Planning and Management

**Potential Careers:**

Urban Designer.



## Master of Architecture (DE80)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056390G

**Course duration (full-time):** 1 year

**Domestic fees (indicative):** 2010: CSP \$3,783 (indicative) per semester

**International Fees (indicative):** 2010: \$10,750 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Philip Crowther

**Campus:** Gardens Point

### Overview

The Master of Architecture enables the development of advanced yet balanced understanding in architectural design and research, contextual studies, technology and science and studies for professional practice. It is the professional degree required, along with the requisite post-graduate work experience, for registration as an architect.

### Entry Requirements

All students entering DE80 Master of Architecture must have completed DE40 Bachelor of Design (Architectural Studies). Applicants who have not completed DE40, must have completed four years full time (or equivalent) study in an accredited program (accredited by the AACA), including the award of an architectural design degree. Students who have such academic achievement in a non-accredited program (international programs), may be asked to submit a portfolio of design work.

### International Student Entry

Subject to English language requirements, entry for international students will be the same as above.

### Professional Recognition

Graduates of the DE80 Master of Architecture meet the academic requirements for membership of the Australian Institute of Architects (AIA). Graduates who have also completed two years of practical architectural experience (at least one year postgraduate) will be eligible to undertake the Architectural Practice Examination which, if successful, will enable the graduate to be eligible for registration with any Board of Architects in Australia.

### Further information

The School of Design - Phone +61 7 3138 2626, Fax +61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Course structure

#### Year 1 - Semester 1

DAN100	Master Studio A
DAN110	Architectural Theory and Research 1
DAN125	Contemporary Architectural Culture
DAN135	Advanced Topics in Architectural Technology 1

#### Year 1 - Semester 2

DAN200	Master Studio B
DAN220	Architectural Theory and Research 2
DAN230	Advanced Studio in Integrated Technologies
DAN245	Professional Practice

### Potential Careers:

Architect .

## **Bachelor of Engineering (Electrical and Computer Engineering) (EE41)**

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$11,750 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412502

**Past rank cut-off:** 80. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Bouchra Senadji

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further Information**

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### **Potential Careers:**

Electrical and Computer Engineer, Electrical Engineer.

## **Bachelor of Engineering (Electrical and Computer Engineering) (EE42)**

**Year offered:** 2010

**Admissions:** No

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$11,750 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### **Further Information**

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

## **Bachelor of Engineering (EN40)**

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056529D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 412502

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer

**Campus:** Gardens Point

### **Recommended Study**

Chemistry, Maths C and Physics.

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Engineering Technology, Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Engineering at QUT in 2010.

### **Professional Recognition**

Full professional accreditation from Engineers Australia has been given for all primary majors in this course. In addition, Software Engineering also has full professional accreditation with the Australian Computer Society.

### **Second Majors**

Depending on your choice of primary major, you may have the opportunity to undertake a second major or two minors. A second major is an established set of eight units (96 credit points) in the same discipline. A minor is an established set of four units (48 credit points) in the same discipline or from anywhere in the University. You will select your primary major, second major and/or minors after the completion of your first year.

### **Special Course Requirements**

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

### **International Student Entry**

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### **Further Information**

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, Fax +6 1 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### **Year 1 - February entry 2010 (common for all Engineering majors)**

#### **Year 1 - Semester 1**

ENB100	Introducing Professional Learning
ENB110	Engineering Statics and Materials
ENB120	Electrical Energy and Measurements
MAB125	Foundations of Engineering Mathematics
	OR
MAB126	Mathematics for Engineering 1

#### **Year 1 - Semester 2**

ENB130	Mechanical and Thermal Energy
ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability
MAB126	Mathematics for Engineering 1
	OR
MAB127	Mathematics for Engineering 2

### **Year 1 - Mid-year entry 2010 (common for all Engineering majors)**

#### **Year 1 - Semester 2**

ENB100	Introducing Professional Learning
ENB110	Engineering Statics and Materials
ENB130	Mechanical and Thermal Energy
MAB125	Foundations of Engineering Mathematics
	OR
MAB126	Mathematics for Engineering 1

#### **Year 1 - Summer**

ENB120	Electrical Energy and Measurements
MAB126	Mathematics for Engineering 1
	OR
MAB127	Mathematics for Engineering 2

### **Potential Careers:**

Biomechanical Engineer, Biomedical Engineer, Civil Engineer, Computer Systems Engineer, Electrical and Computer Engineer, Electrical Engineer, Engineer, Mechanical Engineer, Medical Engineer.

## Bachelor of Engineering (Aerospace Avionics) (EN40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056529D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 412502

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-lyer

**Discipline coordinator:** Dr Felipe Gonzalez

**Campus:** Gardens Point

### Recommended Study

Chemistry, Math C and Physics.

### Career Outcomes

Aerospace Engineers are involved in the design, development, manufacture and maintenance work on aeroplanes, helicopters, spacecraft and satellites. Graduates are employed by the RAAF, RAN and by government bodies such as the Defence Research Centres and the Civil Aviation Authority. There are also career opportunities with aerospace companies, aircraft maintenance and aeronautical consulting services. Opportunities outside aerospace also exist in the areas of electronics, process control, instrument manufacture and automotive equipment.

### Overview

Students study aerodynamics, aircraft control systems, avionics navigation and communication. In later years of the degree, specialist study is undertaken in design of aircraft and satellite systems including systems engineering methodology, aircraft and satellite technology and applications. As many of the teaching staff are involved in relevant research with government and industry sectors, students have the opportunity to work on real projects during their studies.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Minors

For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised

engineering units.

### Special Course Requirements

Students must complete 60 days approved industrial experience in an engineering environment, including 10 days specialist experience in the avionics industry as part of the Work Integrated Learning unit.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

School of Engineering Systems - Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - Students commencing February 2010 onwards (Years 2 - 4)

#### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

#### Year 2 - Semester 1 (to be introduced in 2011)

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
ENB250	Electrical Circuits
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

#### Year 2 - Semester 2 (to be introduced in 2011)

ENB121	Aerodynamics
ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems

#### Year 3 - Semester 1 (to be introduced in 2012)

ENB241	Software Systems Design
ENB342	Signals, Systems and Transforms
ENB348	Aircraft Systems and Flight Control
ENB354	Introduction To Systems Design

## Year 3 - Semester 2 (to be introduced in 2012)

ENB343	Fields, Transmission and Propagation
ENB347	Modern Flight Control Systems
ENB355	Advanced Systems Design
MAB233	Engineering Mathematics 3
	OR
	Selective

## Year 4 - Semester 1 (to be introduced in 2013)

BEB801	Project 1
ENB346	Digital Communications
ENB440	RF and Applied Electromagnetics
ENB451	Aerospace Radio and Radar Systems

## Year 4 - Semester 2 (to be introduced in 2013)

BEB701	Work Integrated Learning 1
BEB802	Project 2
ENB357	Spacecraft Guidance and Control
ENB447	Navigation Systems For Aircraft

## Aerospace Avionics Selectives

ENB344	Industrial Electronics
ENB448	Signal Processing and Filtering
ENB457	Controls, Systems and Applications
INB270	Programming

## Full-time Course structure - Students commencing Mid-Year 2010 (Years 2 - 5)

### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

## Year 2 - Semester 1 (to be introduced in 2011)

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
ENB250	Electrical Circuits
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

## Year 2 - Semester 2 (to be introduced in 2011)

ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability
ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems

## Year 3 - Semester 1 (to be introduced in 2012)

ENB241	Software Systems Design
ENB342	Signals, Systems and Transforms
ENB354	Introduction To Systems Design

ENB440	RF and Applied Electromagnetics
--------	---------------------------------

## Year 3 - Semester 2 (to be introduced in 2012)

ENB121	Aerodynamics
ENB244	Microprocessors and Digital Systems
ENB343	Fields, Transmission and Propagation
ENB355	Advanced Systems Design

## Year 4 - Semester 1 (to be introduced in 2013)

ENB346	Digital Communications
ENB348	Aircraft Systems and Flight Control
MAB233	Engineering Mathematics 3
	OR
	Selective

## Year 4 - Semester 2 (to be introduced in 2013)

BEB801	Project 1
ENB347	Modern Flight Control Systems
ENB357	Spacecraft Guidance and Control
ENB447	Navigation Systems For Aircraft

## Year 5 - Semester 1 (to be introduced in 2014)

BEB701	Work Integrated Learning 1
BEB802	Project 2
ENB451	Aerospace Radio and Radar Systems

## Aerospace Avionics Selectives

ENB344	Industrial Electronics
ENB448	Signal Processing and Filtering
ENB457	Controls, Systems and Applications
INB270	Programming

## Full-time Course structure - Commencing February 2009

### Year 1 - Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

### Year 1 - Semester 2

BEB200	Introducing Sustainability
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B
PCB136	Engineering Physics 1C

### Year 2 - Semester 1



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB240 Introduction To Electronics  
 ENB242 Introduction To Telecommunications  
 ENB246 Engineering Problem Solving  
 MAB233 Engineering Mathematics 3

OR

MAB182 Engineering Mathematics 2B

## Year 2 - Semester 2

ENB121 Aerodynamics  
 ENB140 Introduction to Avionics  
 ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems

## Year 2 - Semester 1

ENB240 Introduction To Electronics  
 ENB242 Introduction To Telecommunications  
 ENB246 Engineering Problem Solving  
 MAB233 Engineering Mathematics 3

## Year 2 - Semester 2

BEB200 Introducing Sustainability  
 ENB241 Software Systems Design  
 ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems

## Year 3 - Semester 1

ENB342 Signals, Systems and Transforms  
 ENB343 Fields, Transmission and Propagation  
 ENB348 Aircraft Systems and Flight Control  
 ENB354 Introduction To Systems Design

## Year 3 - Semester 1

ENB342 Signals, Systems and Transforms  
 ENB343 Fields, Transmission and Propagation  
 ENB348 Aircraft Systems and Flight Control  
 ENB354 Introduction To Systems Design

## Year 3 - Semester 2

ENB241 Software Systems Design  
 ENB346 Digital Communications  
 ENB347 Modern Flight Control Systems  
 ENB355 Advanced Systems Design

## Year 3 - Semester 2

ENB346 Digital Communications  
 ENB347 Modern Flight Control Systems  
 ENB355 Advanced Systems Design  
 ENB356 Military Combat Electronics

## Year 4 - Semester 1

BEB801 Project 1  
 ENB440 RF and Applied Electromagnetics  
 ENB443 Space Technology  
 ENB451 Aerospace Radio and Radar Systems

## Year 4 - Semester 1

BEB801 Project 1  
 ENB440 RF and Applied Electromagnetics  
 ENB443 Space Technology  
 ENB451 Aerospace Radio and Radar Systems

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1  
 BEB802 Project 2  
 ENB444 Spacecraft Guidance and Navigation  
 ENB447 Navigation Systems For Aircraft

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1  
 BEB802 Project 2  
 ENB444 Spacecraft Guidance and Navigation  
 ENB447 Navigation Systems For Aircraft

## Full-time Course structure - Commencing February 2007 & 2008

### Year 1 - Semester 1

BEB100 Introducing Professional Learning  
 ENB140 Introduction to Avionics  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1B  
 PCB136 Engineering Physics 1C

### Year 1 - Semester 2

ENB101 Engineering Mechanics 1  
 ENB103 Electrical Engineering  
 ENB121 Aerodynamics  
 MAB132 Engineering Mathematics 2A

## Full-time Course structure - Commencing February 2006

### Year 1 - Semester 1

ENB101 Engineering Mechanics 1  
 ENB140 Introduction to Avionics  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1  
 PCB136 Engineering Physics 1C

### Year 1 - Semester 2

BEB100 Introducing Professional Learning

- BEB200 Introducing Sustainability
- ENB103 Electrical Engineering
- MAB132 Engineering Mathematics 1B
- OR
- MAB182 Engineering Mathematics 2B

## Year 2 - Semester 1

- ENB240 Introduction To Electronics
- ENB242 Introduction To Telecommunications
- ENB246 Engineering Problem Solving
- MAB233 Engineering Mathematics 3

## Year 2 - Semester 2

- ENB121 Aerodynamics
- ENB241 Software Systems Design
- ENB243 Linear Circuits and Systems
- ENB244 Microprocessors and Digital Systems

## Year 3 - Semester 1

- ENB342 Signals, Systems and Transforms
- ENB343 Fields, Transmission and Propagation
- ENB348 Aircraft Systems and Flight Control
- ENB354 Introduction To Systems Design

## Year 3 - Semester 2

- ENB346 Digital Communications
- ENB347 Modern Flight Control Systems
- ENB355 Advanced Systems Design
- ENB356 Military Combat Electronics

## Year 4 - Semester 1

- BEB801 Project 1
- ENB440 RF and Applied Electromagnetics
- ENB443 Space Technology
- ENB451 Aerospace Radio and Radar Systems

## Year 4 - Semester 2

- BEB701 Work Integrated Learning 1
- BEB802 Project 2
- ENB444 Spacecraft Guidance and Navigation
- ENB447 Navigation Systems For Aircraft

### Potential Careers:

Aerospace Avionics Engineer, Electrical and Computer Engineer, Electrical Engineer, Engineer.

## Bachelor of Engineering (Civil and Construction) (EN40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056529D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 412502

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-lyer

**Discipline coordinator:** Fraser McGregor

**Campus:** Gardens Point

### Recommended study

Chemistry, Maths C and Physics.

### Career Outcomes

Construction engineering is suited to people attracted to the intellectual rigour of engineering, but with a bias towards the challenge of converting design into physical reality. While the course retains sufficient traditional civil engineering to enable graduates to work in consultant offices, most would be employed by civil construction companies and Government Departments. Commercial and legal studies equip graduates to progress through the management structures of these organisations or to establish companies of their own. The range of work undertaken by civil construction companies ranges from residential land development through earthworks, tunnels, roads and dams to airports, marine facilities, major bridges and complex buildings. The world wide trend towards design and construction being undertaken within one organisation, acts to advantage engineers competent in both.

### Overview

This course combines civil engineering with construction management, you will study civil engineering subjects combined with the requirements for managing the construction of large projects.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Civil and Construction) must complete at least 60 days of industrial experience/ practice in an engineering

construction environment as part of the Work Integrated Learning unit.

### Second Majors and Minors

You will have the opportunity to undertake either a 2nd major or two minors. For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised civil engineering units. The second minor must be taken from an approved list outside your discipline.

Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/>

### CIVIL AND CONSTRUCTION ENGINEERING Second Major and Minor Options

**Second Major:**

Civil Infrastructure

**Minors:**

BEE Applications Minor

*plus*

A minor from anywhere in QUT that is outside of the course.

### International Student Entry

International students who are interested in mid-year entry should consult the Faculty of Built Environment and Engineering Student Services section regarding the course structure to be undertaken.

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Further Information

School of Urban Development - Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Full-time Course structure – Students commencing February 2010 onwards (Years 2 – 4)

#### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

#### Year 2 - Semester 1 (to be introduced in 2011)

ENB270 Engineering Mechanics of Materials

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB272 Geotechnical Engineering 1  
 ENB273 Civil Materials  
 MAB233 Engineering Mathematics 3

## Year 2 - Semester 2 (to be introduced in 2011)

ENB275 Project Engineering 1  
 ENB276 Structural Engineering 1  
 ENB280 Hydraulic Engineering  
 UDB214 Professional Studies 2

## Year 3 - Semester 1 (to be introduced in 2012)

ENB277 Construction Engineering Law  
 ENB375 Structural Engineering 2  
 ENB381 Civil Engineering Construction  
 UDB312 Contract Administration

## Year 3 - Semester 2 (to be introduced in 2012)

ENB371 Geotechnical Engineering 2  
 ENB373 Design and Construction of Steel Structures  
 ENB382 Estimating in Engineering Construction  
 Second Major/Minor unit

## Year 4 - Semester 1 (to be introduced in 2013)

BEB801 Project 1  
 ENB471 Design of Concrete Structures and Foundations  
 Second Major/Minor unit  
 Second Major/Minor unit

## Year 4 - Semester 2 (to be introduced in 2013)

BEB701 Work Integrated Learning 1  
 ENB481 Civil Engineering Project Management  
 Second Major/Minor unit  
 Selective

## Civil and Construction Engineering Selectives

BEB802 Project 2  
 ENB376 Transport Engineering

## Full-time Course structure – Students commencing Mid-Year 2010 onwards (Years 2 – 5)

### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

## Year 2 - Semester 1 (to be introduced in 2011)

ENB270 Engineering Mechanics of Materials  
 ENB272 Geotechnical Engineering 1  
 ENB273 Civil Materials  
 MAB233 Engineering Mathematics 3

## Year 2 - Semester 2 (to be introduced in 2011)

ENB150 Introducing Engineering Design  
 ENB200 Introducing Sustainability  
 ENB276 Structural Engineering 1  
 UDB214 Professional Studies 2

## Year 3 - Semester 1 (to be introduced in 2012)

ENB277 Construction Engineering Law  
 ENB375 Structural Engineering 2  
 ENB381 Civil Engineering Construction  
 UDB312 Contract Administration

## Year 3 - Semester 2 (to be introduced in 2012)

ENB275 Project Engineering 1  
 ENB280 Hydraulic Engineering  
 ENB371 Geotechnical Engineering 2  
 ENB382 Estimating in Engineering Construction

## Year 4 - Semester 1 (to be introduced in 2013)

ENB471 Design of Concrete Structures and Foundations  
 Second Major/Minor unit  
 Second Major/Minor unit

## Year 4 - Semester 2 (to be introduced in 2013)

BEB801 Project 1  
 ENB373 Design and Construction of Steel Structures  
 ENB481 Civil Engineering Project Management  
 Second Major/Minor unit

## Year 5 - Semester 1 (to be introduced in 2014)

BEB701 Work Integrated Learning 1  
 Second Major/Minor unit  
 Selective

## Civil and Construction Engineering Selectives

BEB802 Project 2  
 ENB376 Transport Engineering

## Full-time Course structure - Commencing February 2009

### Year 1 - Semester 1

BEB100 Introducing Professional Learning  
 ENB101 Engineering Mechanics 1  
 ENB104 Engineering Materials  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1B

### Year 1 - Semester 2

BEB200 Introducing Sustainability  
 ENB102 Engineering Mechanics 2

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB103 Electrical Engineering  
 MAB132 Engineering Mathematics 2A  
 OR  
 MAB182 Engineering Mathematics 2B

BEB100 Introducing Professional Learning  
 ENB101 Engineering Mechanics 1  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1B  
 UDB110 Residential Construction and Engineering

## Year 2 - Semester 1

ENB271 Design of Structural Timber and Earthworks  
 ENB272 Geotechnical Engineering 1  
 ENB273 Civil Materials  
 MAB233 Engineering Mathematics 3

## Year 1 - Semester 2

BEB200 Introducing Sustainability  
 ENB102 Engineering Mechanics 2  
 ENB104 Engineering Materials  
 MAB132 Engineering Mathematics 2A  
 OR  
 MAB182 Engineering Mathematics 2B

## Year 2 - Semester 2

ENB275 Project Engineering 1  
 ENB276 Structural Engineering 1  
 ENB371 Geotechnical Engineering 2  
 UDB214 Professional Studies 2

## Year 2 - Semester 1

ENB272 Geotechnical Engineering 1  
 ENB273 Civil Materials  
 MAB233 Engineering Mathematics 3  
 UDB312 Contract Administration

## Year 3 - Semester 1

ENB277 Construction Engineering Law  
 ENB375 Structural Engineering 2  
 ENB381 Civil Engineering Construction  
 UDB312 Contract Administration

## Year 2 - Semester 2

ENB103 Electrical Engineering  
 ENB275 Project Engineering 1  
 ENB276 Structural Engineering 1  
 UDB214 Professional Studies 2

## Year 3 - Semester 2

ENB373 Design and Construction of Steel Structures  
 ENB382 Estimating in Engineering Construction  
 Second Major/Minor unit  
 Second Major/Minor unit

## Year 3 - Semester 1

ENB277 Construction Engineering Law  
 ENB375 Structural Engineering 2  
 ENB381 Civil Engineering Construction  
 UDB313 Programming and Scheduling

## Year 4 - Semester 1

BEB801 Project 1  
 ENB471 Design of Concrete Structures and Foundations  
 UDB313 Programming and Scheduling  
 Second Major/Minor unit

## Year 3 - Semester 2

ENB371 Geotechnical Engineering 2  
 ENB373 Design and Construction of Steel Structures  
 ENB382 Estimating in Engineering Construction  
 Second Major/Minor unit

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1  
 Applications Minor Selective  
 Applications Minor Selective  
 Second Major/Minor unit

## Year 4 - Semester 1

BEB701 Work Integrated Learning 1  
 BEB801 Project 1  
 ENB471 Design of Concrete Structures and Foundations  
 Second Major/Minor unit

## Applications Minor Selectives

Semester 2:

BEB802 Project 2  
 ENB476 Civil Engineering Design Project  
 ENB481 Civil Engineering Project Management

## Year 4 - Semester 2

Applications Minor Selective  
 Applications Minor Selective  
 Second Major/Minor unit  
 Second Major/Minor unit

## Full-time Course structure - Commencing February 2006 - 2008

## Year 1 - Semester 1

**Applications Minor Selectives**

Semester 2:

- BEB802 Project 2
- ENB476 Civil Engineering Design Project
- ENB481 Civil Engineering Project Management

**Course Structure - Civil Infrastructure 2nd major (commencing 2006-8)**

**Year 1, Semester 1**

- BEB100 Introducing Professional Learning
- ENB101 Engineering Mechanics 1
- MAB131 Engineering Mathematics 1A  
OR
- MAB180 Engineering Mathematics 1B
- UDB110 Residential Construction and Engineering

**Year 1, Semester 2**

- BEB200 Introducing Sustainability
- ENB102 Engineering Mechanics 2
- ENB104 Engineering Materials
- MAB132 Engineering Mathematics 2A  
OR
- MAB182 Engineering Mathematics 2B

**Year 2, Semester 1**

- ENB272 Geotechnical Engineering 1
- ENB273 Civil Materials
- MAB233 Engineering Mathematics 3
- UDB312 Contract Administration

**Year 2, Semester 2**

- ENB103 Electrical Engineering
- ENB275 Project Engineering 1
- ENB276 Structural Engineering 1
- UDB214 Professional Studies 2

**Year 3, Semester 1**

- ENB277 Construction Engineering Law
- ENB375 Structural Engineering 2
- ENB381 Civil Engineering Construction
- UDB313 Programming and Scheduling

**Year 3, Semester 2**

- ENB201 Fluid Mechanics
- ENB371 Geotechnical Engineering 2
- ENB373 Design and Construction of Steel Structures
- ENB382 Estimating in Engineering Construction

**Year 4, Semester 1**

- BEB701 Work Integrated Learning 1

- ENB372 Design and Planning of Highways
- ENB378 Water Engineering
- ENB471 Design of Concrete Structures and Foundations

**Year 4, Semester 2**

- BEB801 Project 1
- ENB376 Transport Engineering  
2nd Major Selective  
2nd Major Selective

**2nd Major Selectives**

Semester 1:

- DAB110 Architectural Design 1
- ENB473 Design and Construction of Multi-storey Buildings
- ENB475 Structural Engineering 3
- ENB485 Advanced Geotechnical Engineering Practice

Semester 2:

- BEB802 Project 2
- DAB210 Architectural Design 2
- ENB377 Water and Waste Water Treatment Engineering
- ENB474 Finite Element Methods
- ENB476 Civil Engineering Design Project
- ENB481 Civil Engineering Project Management

**Course structure - Structural Engineering 2nd major (commencing 2006)**

**Year 1, Semester 1**

- BEB100 Introducing Professional Learning
- ENB101 Engineering Mechanics 1
- MAB131 Engineering Mathematics 1A  
OR
- MAB180 Engineering Mathematics 1B
- UDB110 Residential Construction and Engineering

**Year 1, Semester 2**

- BEB200 Introducing Sustainability
- ENB102 Engineering Mechanics 2
- ENB104 Engineering Materials
- MAB132 Engineering Mathematics 2A  
OR
- MAB182 Engineering Mathematics 2B

**Year 2, Semester 1**

- ENB272 Geotechnical Engineering 1
- ENB273 Civil Materials
- MAB233 Engineering Mathematics 3
- UDB312 Contract Administration



## Year 2, Semester 2

ENB103	Electrical Engineering
ENB275	Project Engineering 1
ENB276	Structural Engineering 1
UDB214	Professional Studies 2

## Year 3, Semester 1

ENB277	Construction Engineering Law
ENB375	Structural Engineering 2
ENB381	Civil Engineering Construction
UDB313	Programming and Scheduling

## Year 3, Semester 2

BEB701	Work Integrated Learning 1
ENB371	Geotechnical Engineering 2
ENB373	Design and Construction of Steel Structures
ENB382	Estimating in Engineering Construction

## Year 4, Semester 1

BEB801	Project 1
ENB471	Design of Concrete Structures and Foundations
ENB475	Structural Engineering 3 Second Major Selective

## Year 4, Semester 2

Second Major Selective  
Second Major Selective  
Second Major Selective  
Second Major Selective

## Second Major Selectives

Semester 1:

DAB110	Architectural Design 1
ENB473	Design and Construction of Multi-storey Buildings
ENB485	Advanced Geotechnical Engineering Practice

Semester 2:

BEB802	Project 2
DAB210	Architectural Design 2
ENB474	Finite Element Methods
ENB476	Civil Engineering Design Project
ENB481	Civil Engineering Project Management

## Potential Careers:

Civil Engineer, Construction Manager, Engineer, Project Manager.

## Bachelor of Engineering (Civil and Environmental) (EN40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056529D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 412502

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-lyer

**Discipline coordinator:** Fraser McGregor

**Campus:** Gardens Point

### Recommended Study

Chemistry, Maths C and Physics.

### Career Outcomes

Environmental management is concerned mainly with the assessment and management of the effect of human and other activity on the environment. Graduates apply their skills to find solutions for the management of liquid and solid waste, or air and noise pollution. Graduates can be employed by government bodies and private companies involved with the environmental aspects of planning, designing, constructing and monitoring of structures and facilities including mines, factories, power stations, water and waste water treatment plants and refineries. As legislation becomes more stringent and the community's expectations increase, there will be need for institutions to employ more environmental engineers.

### Overview

This course will provide you with the technical education in civil, environmental engineering and science as well as environmental management skills and mining and sustainable development.

### Minors (for students commencing 2010 onwards)

For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised engineering units.

### Minors (for students commencing prior to 2010)

You will have the opportunity to undertake two minors. For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised civil engineering

units. The second minor must be taken from an approved list outside your discipline.

Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/>

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Civil and Environmental) must obtain at least 60 days of industrial experience/practice in an engineering environment as part of the Work Integrated Learning unit.

### Further Information

School of Urban Development - Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

All domestic applicants offered admission to undergraduate award courses may apply to defer commencement of their study. A deferment application will not normally be considered for courses where specific admission requirements apply, for example submission of folios or undertaking auditions. Applicants are not entitled to hold a deferred place and hold a place in another QUT course for the same period.

Find out more on deferment.

### Full-time Course structure – Students commencing February 2010 onwards (Years 2 – 4)

#### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

#### Year 2 - Semester 1 (to be introduced in 2011)

ENB270	Engineering Mechanics of Materials
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials
MAB233	Engineering Mathematics 3

#### Year 2 - Semester 2 (to be introduced in 2011)

ENB274	Design of Environmentally Sustainable Systems
ENB275	Project Engineering 1
ENB276	Structural Engineering 1
ENB280	Hydraulic Engineering

## Year 3 - Semester 1 (to be introduced in 2012)

ENB372	Design and Planning of Highways
ENB378	Water Engineering
ENB383	Environmental Resource Management
NQB302	Earth Surface Systems OR
NQB314	Sedimentary Geology

## Year 3 - Semester 2 (to be introduced in 2012)

ENB371	Geotechnical Engineering 2
ENB376	Transport Engineering
ENB380	Environmental Law and Assessment Selective

## Year 4 - Semester 1 (to be introduced in 2013)

BEB801	Project 1
PQB360	Global Energy Balance and Climate Change
UDB266	Planning Processes and Consultations Selective

## Year 4 - Semester 2 (to be introduced in 2013)

BEB701	Work Integrated Learning 1
ENB377	Water and Waste Water Treatment Engineering
NQB601	Sustainable Environmental Management
NQB403	Soils and the Environment OR
NQB614	Groundwater Systems

## Civil and Environmental Engineering Selectives

BEB802	Project 2
ENB375	Structural Engineering 2
ENB471	Design of Concrete Structures and Foundations
ENB474	Finite Element Methods
ENB476	Civil Engineering Design Project

## Full-time Course structure – Students commencing Mid-Year 2010 onwards (Years 2 – 5)

### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

## Year 2 - Semester 1 (to be introduced in 2011)

ENB270	Engineering Mechanics of Materials
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials

## Year 2 - Semester 2 (to be introduced in 2011)

ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability

ENB274	Design of Environmentally Sustainable Systems
--------	--

ENB276	Structural Engineering 1
--------	--------------------------

## Year 3 - Semester 1 (to be introduced in 2012)

ENB372	Design and Planning of Highways
ENB383	Environmental Resource Management
MAB233	Engineering Mathematics 3
NQB302	Earth Surface Systems OR
NQB314	Sedimentary Geology

## Year 3 - Semester 2 (to be introduced in 2012)

ENB275	Project Engineering 1
ENB280	Hydraulic Engineering
ENB371	Geotechnical Engineering 2
ENB380	Environmental Law and Assessment

## Year 4 - Semester 1 (to be introduced in 2013)

ENB378	Water Engineering
PQB360	Global Energy Balance and Climate Change
UDB266	Planning Processes and Consultations

## Year 4 - Semester 2 (to be introduced in 2013)

ENB376	Transport Engineering
ENB377	Water and Waste Water Treatment Engineering
NQB601	Sustainable Environmental Management
NQB403	Soils and the Environment OR
NQB614	Groundwater Systems

## Year 5 - Semester 1 (to be introduced in 2014)

BEB701	Work Integrated Learning 1
BEB801	Project 1 Selective

## Civil and Environmental Engineering Selectives

BEB802	Project 2
ENB375	Structural Engineering 2
ENB471	Design of Concrete Structures and Foundations
ENB474	Finite Element Methods
ENB476	Civil Engineering Design Project

## Full-time Course structure - Commencing February 2008 & 2009

## Year 1 - Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

OR

MAB180 Engineering Mathematics 1B

## Year 1 - Semester 2

BEB200 Introducing Sustainability

ENB102 Engineering Mechanics 2

ENB103 Electrical Engineering

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

## Year 2 - Semester 1

ENB271 Design of Structural Timber and Earthworks

ENB272 Geotechnical Engineering 1

ENB273 Civil Materials

MAB233 Engineering Mathematics 3

## Year 2 - Semester 2

ENB201 Fluid Mechanics

ENB274 Design of Environmentally Sustainable Systems

ENB275 Project Engineering 1

ENB276 Structural Engineering 1

## Year 3 - Semester 1

ENB372 Design and Planning of Highways

ENB378 Water Engineering

ENB383 Environmental Resource Management  
Second Major/Minor Unit

## Year 3 - Semester 2

ENB371 Geotechnical Engineering 2

ENB376 Transport Engineering

ENB380 Environmental Law and Assessment

UDB164 Population and Urban Studies

## Year 4 - Semester 1

BEB701 Work Integrated Learning 1

BEB801 Project 1

Applications Minor Selective

Second Major/Minor Unit

## Year 4 - Semester 2

ENB377 Water and Waste Water Treatment Engineering

Applications Minor Selective

Second Major/Minor Unit

Second Major/Minor Unit

## Applications Minor Selectives

Semester 1:

ENB379 Transport Engineering and Planning

Applications

ENB478 Advanced Water Engineering

ENB485 Advanced Geotechnical Engineering Practice  
Semester 2:

BEB802 Project 2

ENB474 Finite Element Methods

ENB476 Civil Engineering Design Project

## Full-time Course structure - Commencing February 2006 & 2007

### Year 1 - Semester 1

BEB100 Introducing Professional Learning

ENB101 Engineering Mechanics 1

ENB104 Engineering Materials

MAB131 Engineering Mathematics 1A

OR

MAB180 Engineering Mathematics 1B

### Year 1 - Semester 2

BEB200 Introducing Sustainability

ENB102 Engineering Mechanics 2

ENB103 Electrical Engineering

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

### Year 2 - Semester 1

ENB271 Design of Structural Timber and Earthworks

ENB272 Geotechnical Engineering 1

ENB273 Civil Materials

MAB233 Engineering Mathematics 3

### Year 2 - Semester 2

ENB201 Fluid Mechanics

ENB274 Design of Environmentally Sustainable Systems

ENB275 Project Engineering 1

ENB276 Structural Engineering 1

### Year 3 - Semester 1

ENB372 Design and Planning of Highways

ENB378 Water Engineering

ENB383 Environmental Resource Management  
Second Major/Minor unit

### Year 3 - Semester 2

ENB371 Geotechnical Engineering 2

ENB377 Water and Waste Water Treatment Engineering

ENB380 Environmental Law and Assessment

UDB164 Population and Urban Studies

**Year 4 - Semester 1**

- BEB701 Work Integrated Learning 1
- BEB801 Project 1
- Applications Minor Selective
- Second Major/Minor unit

**Year 4 - Semester 2**

- Applications Minor Selective
- Applications Minor Selective
- Second Major/Minor unit
- Second Major/Minor unit

**Application Minor Selectives**

Semester 1:

- ENB379 Transport Engineering and Planning Applications
- ENB478 Advanced Water Engineering
- ENB485 Advanced Geotechnical Engineering Practice

Semester 2:

- BEB802 Project 2
- ENB474 Finite Element Methods
- ENB476 Civil Engineering Design Project

**Potential Careers:**

Civil Engineer, Engineer, Environmental Engineer.

## Bachelor of Engineering (Civil) (EN40)

Year offered: 2010

Admissions: Yes

CRICOS code: 056529D

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,800 (indicative) per semester

International Fees (indicative): 2010: \$12,000 (indicative) per semester

Domestic Entry: February and July

International Entry: February and July

QTAC code: 412502

Past rank cut-off: 79

Past OP cut-off: 11

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths B (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr R.Mahalinga-Iyer

Discipline coordinator: Fraser McGregor

Campus: Gardens Point

### Recommended Study

Chemistry, Maths C and Physics.

### Career Outcomes

Civil engineers plan, design, construct, operate and maintain roads, bridges, dams, water supply schemes, sewerage systems, transportation, harbours, canals, dockyard facilities, airports, railways, factories and large buildings. Civil engineers may gain employment with Local, State and Commonwealth Governments, semi-government agencies, construction firms, power generating authorities, mining firms, property developers and consulting engineering firms. A small number are employed in research activities and teaching. After obtaining suitable experience there is also the opportunity to establish their own consulting engineering practice.

### Overview

This course allows you to develop your knowledge in a number of areas such as: Structural Analysis and Design, Computer Applications, Transport Engineering, Environmental Engineering, Geotechnical Mechanics, Water Engineering, Construction Management, Waste Management. Environmental major; Sustainable development, waste management, toxic site rehabilitation, water & wastewater.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Second Majors and Minors

You will have the opportunity to undertake either a 2nd major or two minors. For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two

specialised civil engineering units. The second minor must be taken from an approved list outside your discipline.

Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/>

### CIVIL ENGINEERING Second Major and Minor Options

Second Major:

Structural Engineering

Transport Engineering and Planning

Minors:

BEE Applications Minor

plus

A minor from anywhere in QUT that is outside of the course.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Civil) must obtain at least 60 days of industrial experience/practice in an engineering environment as part of the Work Integrated Learning unit.

### Further Information

School of Urban Development - Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Deferment

All domestic applicants offered admission to undergraduate award courses may apply to defer commencement of their study. A deferment application will not normally be considered for courses where specific admission requirements apply, for example submission of folios or undertaking auditions. Applicants are not entitled to hold a deferred place and hold a place in another QUT course for the same period.

Find out more on deferment.

### Full-time Course structure – Students commencing February 2010 onwards (Years 2 – 4)

#### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

#### Year 2 - Semester 1 (to be introduced in 2011)

ENB270	Engineering Mechanics of Materials
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials
MAB233	Engineering Mathematics 3

#### Year 2 - Semester 2 (to be introduced in 2011)

ENB274	Design of Environmentally Sustainable Systems
--------	---



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB275 Project Engineering 1  
 ENB276 Structural Engineering 1  
 ENB280 Hydraulic Engineering

## Year 3 - Semester 1 (to be introduced in 2012)

ENB372 Design and Planning of Highways  
 ENB375 Structural Engineering 2  
 ENB378 Water Engineering  
 Second Major/Minor unit

## Year 3 - Semester 2 (to be introduced in 2012)

ENB371 Geotechnical Engineering 2  
 ENB376 Transport Engineering  
 ENB377 Water and Waste Water Treatment Engineering  
 Second Major/Minor unit

## Year 4 - Semester 1 (to be introduced in 2013)

BEB701 Work Integrated Learning 1  
 BEB801 Project 1  
 ENB471 Design of Concrete Structures and Foundations  
 Second Major/Minor unit

## Year 4 - Semester 2 (to be introduced in 2013)

ENB472 Project Engineering 2  
 ENB476 Civil Engineering Design Project  
 Second Major/Minor unit  
 Selective

## Civil Engineering Selectives

BEB802 Project 2  
 ENB373 Design and Construction of Steel Structures  
 ENB379 Transport Engineering and Planning Applications  
 ENB380 Environmental Law and Assessment  
 ENB383 Environmental Resource Management  
 ENB384 Design of Masonry Structures  
 ENB473 Design and Construction of Multi-storey Buildings  
 ENB474 Finite Element Methods  
 ENB475 Structural Engineering 3  
 ENB478 Advanced Water Engineering  
 ENB481 Civil Engineering Project Management  
 ENB485 Advanced Geotechnical Engineering Practice

## Full-time Course structure – Students commencing Mid-Year 2010 onwards (Years 2 – 5)

### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

## Year 2 - Semester 1 (to be introduced in 2011)

ENB270 Engineering Mechanics of Materials  
 ENB272 Geotechnical Engineering 1  
 ENB273 Civil Materials

## Year 2 - Semester 2 (to be introduced in 2011)

ENB150 Introducing Engineering Design  
 ENB200 Introducing Sustainability  
 ENB274 Design of Environmentally Sustainable Systems  
 ENB276 Structural Engineering 1

## Year 3 - Semester 1 (to be introduced in 2012)

ENB372 Design and Planning of Highways  
 ENB375 Structural Engineering 2  
 MAB233 Engineering Mathematics 3

## Year 3 - Semester 2 (to be introduced in 2012)

ENB275 Project Engineering 1  
 ENB280 Hydraulic Engineering  
 ENB371 Geotechnical Engineering 2  
 ENB376 Transport Engineering

## Year 4 - Semester 1 (to be introduced in 2013)

ENB378 Water Engineering  
 ENB471 Design of Concrete Structures and Foundations  
 Second Major/Minor unit  
 Second Major/Minor unit

## Year 4 - Semester 2 (to be introduced in 2013)

ENB377 Water and Waste Water Treatment Engineering  
 ENB472 Project Engineering 2  
 ENB476 Civil Engineering Design Project  
 Second Major/Minor unit

## Year 5 - Semester 1 (to be introduced in 2014)

BEB701 Work Integrated Learning 1  
 BEB801 Project 1  
 Selective  
 Second Major/Minor unit

## Civil Engineering Selectives

BEB802 Project 2  
 ENB373 Design and Construction of Steel Structures  
 ENB379 Transport Engineering and Planning Applications  
 ENB380 Environmental Law and Assessment  
 ENB383 Environmental Resource Management  
 ENB384 Design of Masonry Structures  
 ENB473 Design and Construction of Multi-storey

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

## Buildings

ENB474	Finite Element Methods
ENB475	Structural Engineering 3
ENB478	Advanced Water Engineering
ENB481	Civil Engineering Project Management
ENB485	Advanced Geotechnical Engineering Practice

### Full-time Course structure - Commencing February 2006 - 2009

#### Year 1 - Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

#### Year 1 - Semester 2

BEB200	Introducing Sustainability
ENB102	Engineering Mechanics 2
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B

#### Year 2 - Semester 1

ENB271	Design of Structural Timber and Earthworks
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials
MAB233	Engineering Mathematics 3

#### Year 2 - Semester 2

ENB201	Fluid Mechanics
ENB274	Design of Environmentally Sustainable Systems
ENB275	Project Engineering 1
ENB276	Structural Engineering 1

#### Year 3 - Semester 1

ENB372	Design and Planning of Highways
ENB375	Structural Engineering 2
ENB378	Water Engineering
	Second Major/Minor unit

#### Year 3 - Semester 2

ENB371	Geotechnical Engineering 2
ENB376	Transport Engineering
ENB377	Water and Waste Water Treatment Engineering
	Second Major/Minor unit

#### Year 4 - Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB471	Design of Concrete Structures and Foundations
	Applications Minor Selective

#### Year 4 - Semester 2

ENB472	Project Engineering 2
	Applications Minor Selective
	Second Major/Minor unit
	Second Major/Minor unit

#### Applications Minor Selectives

	Semester 1:
ENB379	Transport Engineering and Planning Applications
ENB383	Environmental Resource Management
ENB384	Design of Masonry Structures
ENB473	Design and Construction of Multi-storey Buildings
ENB475	Structural Engineering 3
ENB478	Advanced Water Engineering
ENB485	Advanced Geotechnical Engineering Practice
	Semester 2:
BEB802	Project 2
ENB373	Design and Construction of Steel Structures
ENB380	Environmental Law and Assessment
ENB474	Finite Element Methods
ENB476	Civil Engineering Design Project
ENB481	Civil Engineering Project Management

### Full-time Course structure - Commencing Mid-Year 2006 - 2008

#### Year 1 - Semester 2

BEB200	Introducing Sustainability
ENB101	Engineering Mechanics 1
ENB103	Electrical Engineering
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

#### Year 1 - Summer

ENB102	Engineering Mechanics 2
MAB182	Engineering Mathematics 2B

#### Year 2 - Semester 1

BEB100	Introducing Professional Learning
ENB271	Design of Structural Timber and Earthworks
ENB272	Geotechnical Engineering 1

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB273 Civil Materials  
MAB233 Engineering Mathematics 3

## Year 2 - Semester 2

ENB201 Fluid Mechanics  
ENB274 Design of Environmentally Sustainable Systems  
ENB275 Project Engineering 1  
ENB276 Structural Engineering 1

## Year 3 - Semester 1

ENB372 Design and Planning of Highways  
ENB375 Structural Engineering 2  
ENB378 Water Engineering  
Second Major/Minor unit

## Year 3 - Semester 2

ENB371 Geotechnical Engineering 2  
ENB376 Transport Engineering  
ENB377 Water and Waste Water Treatment Engineering  
Second Major/Minor unit

## Year 4 - Semester 1

BEB701 Work Integrated Learning 1  
BEB801 Project 1  
ENB471 Design of Concrete Structures and Foundations  
Applications Minor Selective

## Year 4 - Semester 2

ENB472 Project Engineering 2  
Applications Minor Selective  
Second Major/Minor unit  
Second Major/Minor unit

## Applications Minor Selectives

### Semester 1:

ENB379 Transport Engineering and Planning Applications  
ENB383 Environmental Resource Management  
ENB475 Structural Engineering 3  
ENB478 Advanced Water Engineering  
ENB485 Advanced Geotechnical Engineering Practice

### Semester 2:

BEB802 Project 2  
ENB373 Design and Construction of Steel Structures  
ENB380 Environmental Law and Assessment  
ENB473 Design and Construction of Multi-storey Buildings  
ENB474 Finite Element Methods  
ENB476 Civil Engineering Design Project

ENB481 Civil Engineering Project Management

## Course Structure - Structural Engineering 2nd major (commencing 2007-9)

### Year 1, Semester 1

BEB100 Introducing Professional Learning  
ENB101 Engineering Mechanics 1  
ENB104 Engineering Materials  
MAB131 Engineering Mathematics 1A  
OR  
MAB180 Engineering Mathematics 1B

### Year 1, Semester 2

BEB200 Introducing Sustainability  
ENB102 Engineering Mechanics 2  
ENB103 Electrical Engineering  
MAB132 Engineering Mathematics 2A  
OR  
MAB182 Engineering Mathematics 2B

### Year 2, Semester 1

ENB271 Design of Structural Timber and Earthworks  
ENB272 Geotechnical Engineering 1  
ENB273 Civil Materials  
MAB233 Engineering Mathematics 3

### Year 2, Semester 2

ENB201 Fluid Mechanics  
ENB274 Design of Environmentally Sustainable Systems  
ENB275 Project Engineering 1  
ENB276 Structural Engineering 1

### Year 3, Semester 1

ENB372 Design and Planning of Highways  
ENB375 Structural Engineering 2  
ENB378 Water Engineering  
ENB384 Design of Masonry Structures

### Year 3, Semester 2

ENB371 Geotechnical Engineering 2  
ENB373 Design and Construction of Steel Structures  
ENB376 Transport Engineering  
ENB377 Water and Waste Water Treatment Engineering

### Year 4, Semester 1

BEB801 Project 1  
ENB471 Design of Concrete Structures and Foundations  
ENB475 Structural Engineering 3  
Second Major Selective

**Year 4, Semester 2**

BEB701	Work Integrated Learning 1
ENB472	Project Engineering 2
ENB474	Finite Element Methods
	Second Major Selective

**Second Major Selectives**

Semester 1:

DAB110	Architectural Design 1
ENB473	Design and Construction of Multi-storey Buildings
ENB485	Advanced Geotechnical Engineering Practice

Semester 2:

BEB802	Project 2
DAB210	Architectural Design 2
ENB476	Civil Engineering Design Project
ENB481	Civil Engineering Project Management

**Course Structure - Structural Engineering 2nd major (commencing 2006)**

**Year 1, Semester 1**

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

**Year 1, Semester 2**

BEB200	Introducing Sustainability
ENB102	Engineering Mechanics 2
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B

**Year 2, Semester 1**

ENB271	Design of Structural Timber and Earthworks
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials
MAB233	Engineering Mathematics 3

**Year 2, Semester 2**

ENB201	Fluid Mechanics
ENB274	Design of Environmentally Sustainable Systems
ENB275	Project Engineering 1
ENB276	Structural Engineering 1

**Year 3, Semester 1**

BEB701	Work Integrated Learning 1
ENB372	Design and Planning of Highways
ENB375	Structural Engineering 2
ENB378	Water Engineering

**Year 3, Semester 2**

ENB371	Geotechnical Engineering 2
ENB373	Design and Construction of Steel Structures
ENB376	Transport Engineering
ENB377	Water and Waste Water Treatment Engineering

**Year 4, Semester 1**

BEB801	Project 1
ENB471	Design of Concrete Structures and Foundations
ENB475	Structural Engineering 3
	Second Major Selective

**Year 4, Semester 2**

ENB472	Project Engineering 2
	Second Major Selective
	Second Major Selective
	Second Major Selective

**Second Major Selectives**

Semester 1:

DAB110	Architectural Design 1
ENB384	Design of Masonry Structures
ENB473	Design and Construction of Multi-storey Buildings
ENB485	Advanced Geotechnical Engineering Practice

Semester 2:

BEB802	Project 2
DAB210	Architectural Design 2
ENB474	Finite Element Methods
ENB476	Civil Engineering Design Project
ENB481	Civil Engineering Project Management

**Course Structure - Transport Engineering and Planning 2nd major (commencing 2010 onwards)**

**Year 1, Semester 1**

ENB100	Introducing Professional Learning
ENB110	Engineering Statics and Materials
ENB130	Mechanical and Thermal Energy
MAB125	Foundations of Engineering Mathematics
	OR
MAB126	Mathematics for Engineering 1

**Year 1, Semester 2**

ENB120	Electrical Energy and Measurements
--------	------------------------------------

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability
MAB126	Mathematics for Engineering 1
	OR
MAB127	Mathematics for Engineering 2

## Year 2, Semester 1

ENB270	Engineering Mechanics of Materials
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials
MAB233	Engineering Mathematics 3

## Year 2, Semester 2

ENB274	Design of Environmentally Sustainable Systems
ENB275	Project Engineering 1
ENB276	Structural Engineering 1
ENB280	Hydraulic Engineering

## Year 3, Semester 1

ENB372	Design and Planning of Highways
ENB375	Structural Engineering 2
ENB378	Water Engineering
UDB266	Planning Processes and Consultations

## Year 3, Semester 2

ENB371	Geotechnical Engineering 2
ENB376	Transport Engineering
ENB377	Water and Waste Water Treatment Engineering
UDB104	Urban Development Economics

## Year 4, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB379	Transport Engineering and Planning Applications
ENB471	Design of Concrete Structures and Foundations

## Year 4, Semester 2

ENB472	Project Engineering 2
UDB267	Development Assessment and Infrastructure
UDB370	Environmental Planning and Management
	Second Major Selective

## Second Major Selectives

Semester 2:

BEB802	Project 2
ENB476	Civil Engineering Design Project

## Course Structure - Transport Engineering and Planning 2nd major (commencing 2006-9)

## Year 1, Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

## Year 1, Semester 2

BEB200	Introducing Sustainability
ENB102	Engineering Mechanics 2
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B

## Year 2, Semester 1

ENB271	Design of Structural Timber and Earthworks
ENB272	Geotechnical Engineering 1
ENB273	Civil Materials
MAB233	Engineering Mathematics 3

## Year 2, Semester 2

ENB201	Fluid Mechanics
ENB274	Design of Environmentally Sustainable Systems
ENB275	Project Engineering 1
ENB276	Structural Engineering 1

## Year 3, Semester 1

ENB372	Design and Planning of Highways
ENB375	Structural Engineering 2
ENB378	Water Engineering
UDB266	Planning Processes and Consultations

## Year 3, Semester 2

ENB371	Geotechnical Engineering 2
ENB376	Transport Engineering
ENB377	Water and Waste Water Treatment Engineering
UDB104	Urban Development Economics

## Year 4, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB379	Transport Engineering and Planning Applications
ENB471	Design of Concrete Structures and Foundations

## Year 4, Semester 2

ENB472 Project Engineering 2  
UDB267 Development Assessment and Infrastructure  
UDB370 Environmental Planning and Management  
Second Major Selective

**Second Major Selectives**

Semester 2:

BEB802 Project 2  
ENB476 Civil Engineering Design Project

**Potential Careers:**

Civil Engineer, Engineer, Environmental Engineer.



## Bachelor of Engineering (Computer Systems) (EN40)

Year offered: 2010

Admissions: No

CRICOS code: 056529D

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,800 (indicative) per semester

International Fees (indicative): 2010: \$12,000 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2009.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2009.

QTAC code: 412502

Past rank cut-off: 79

Past OP cut-off: 11

OP Guarantee: Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-lyer

**Discipline coordinator:** Dr Jasmine Banks

**Campus:** Gardens Point

### Discontinuation

From Semester 1 2010, this primary major has been discontinued. A second major in this discipline is currently under development.

### Recommended Study

Chemistry, Maths C and Physics.

### Career Outcomes

Graduates will be employed as design engineers, software engineers, hardware engineers, computer system engineers, information systems engineers, research and development engineers and project managers.

### Overview

Students will study units from both electrical engineering and computing from a computer-based systems perspective. The course aims to produce students who are employable as design engineers, software and hardware engineers, computer systems engineers, and information systems engineers.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Optional Pathways

Students entering the Bachelor of Engineering (Electronics)/Bachelor of Information Technology course or the Bachelor of Engineering (Telecommunications) course can change to the Bachelor of Engineering (Computer

Systems) at the end of the first year without loss of credit, subject to approval from the course coordinator and meeting minimum course requirements.

### Minors

For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised engineering units.

### Special Course Requirements

Students must complete at least 60 days industrial experience as part of the Work Integrated Learning unit in order to graduate.

### Further Information

School of Engineering Systems - Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Full-time Course structure - Commencing February 2009

#### Year 1 - Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

#### Year 1 - Semester 2

BEB200	Introducing Sustainability
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B
PCB136	Engineering Physics 1C

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

## Year 2 - Semester 1

ENB240	Introduction To Electronics
ENB242	Introduction To Telecommunications
INB104	Building IT Systems
MAB233	Engineering Mathematics 3

## Year 2 - Semester 2

ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice
INB270	Programming

## Year 3 - Semester 1

ENB301	Instrumentation and Control
ENB342	Signals, Systems and Transforms
ENB350	Real-time Computer-based Systems
INB371	Data Structures and Algorithms

## Year 3 - Semester 2

ENB345	Advanced Design and Professional Practice
ENB346	Digital Communications
ENB352	Communication Environments For Embedded Systems
INB251	Networks

## Year 4 - Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB441	Applied Image Processing Applications Minor Selective

## Year 4 - Semester 2

BEB802	Project 2
ENB448	Signal Processing and Filtering
ENB458	Modern Control Systems
INB365	Systems Programming

## Applications Minor Selectives

### Semester 1:

INB340	Database Design
INB355	Cryptology and Protocols
INB373	Web Application Development
INB381	Modelling and Animation Techniques

### Semester 2:

INB272	Interaction Design
INB374	Enterprise Software Architecture
INB382	Real Time Rendering Techniques

**Full-time Course structure - Commencing February 2006 - 2008**

## Year 1 - Semester 1

BEB100	Introducing Professional Learning
MAB131	Engineering Mathematics 1A OR
MAB180	Engineering Mathematics 1B
PCB136	Engineering Physics 1C
INB104	Building IT Systems OR (prior to 2009)
ITB001	Problem Solving and Programming

## Year 1 - Semester 1

BEB200	Introducing Sustainability
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A OR
MAB182	Engineering Mathematics 2B
INB270	Programming OR (prior to 2009)
ITB003	Object Oriented Programming

## Year 2 - Semester 1

ENB240	Introduction To Electronics
ENB242	Introduction To Telecommunications
MAB233	Engineering Mathematics 3
INB371	Data Structures and Algorithms OR (prior to 2009)
ITB711	Programming Abstraction

## Year 2 - Semester 2

ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice
INB251	Networks OR (prior to 2009)
ITB006	Networks

## Year 3 - Semester 1

ENB301	Instrumentation and Control
ENB342	Signals, Systems and Transforms
ENB350	Real-time Computer-based Systems IT Elective 1

## Year 3 - Semester 2

ENB345	Advanced Design and Professional Practice
ENB346	Digital Communications
ENB352	Communication Environments For Embedded Systems
INB365	Systems Programming

## Year 4 - Semester 1

- BEB701 Work Integrated Learning 1
- BEB801 Project 1
- ENB441 Applied Image Processing  
IT Elective 2

## Year 4 - Semester 2

- BEB802 Project 2
- ENB448 Signal Processing and Filtering
- ENB458 Modern Control Systems  
IT Elective 3

## IT Electives

IT Elective 1

Any level 2 IT unit (INB200 level) approved by the Subject Area Coordinator.

IT Elective 2

- INB350 Internet Protocols and Services
- INB353 Wireless and Mobile Networks
- INB370 Software Development
- INB381 Modelling and Animation Techniques  
IT Elective 3
- INB351 Computer Network Administration
- INB352 Network Planning and Deployment
- INB355 Cryptology and Protocols
- INB372 Agile Software Development
- INB382 Real Time Rendering Techniques

Please note: Appropriate prerequisite for IT Elective 3 must be completed as IT Elective 2.

## Potential Careers:

Computer Systems Engineer, Electrical and Computer Engineer, Engineer, Systems Programmer.

## Bachelor of Engineering (Infomechatronics) (EN40)

Year offered: 2010

Admissions: Yes

CRICOS code: 056529D

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,800 (indicative) per semester

International Fees (indicative): 2010: \$12,000 (indicative) per semester

Domestic Entry: February and July

International Entry: February and July

QTAC code: 412502

Past rank cut-off: 79

Past OP cut-off: 11

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths B (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr R.Mahalinga-Iyer

Discipline coordinator: Dr Gary Chadwick

Campus: Gardens Point

### Please Note:

As from 2011, Infomechatronics will become Mechatronics.

### Recommended Study

Chemistry, Maths C and Physics.

### Career Outcomes

This leading edge degree provides graduates with the combined skills of mechanical engineering, electrical and electronic engineering and information technology to work in the high tech fields of automated systems and robotics for the design, development, construction and service of modern equipment and plant. Graduates from this degree may expect to find employment as consultants, project managers, designers, and maintenance and instrumentation engineers in a wide variety of work situations. The range of employment opportunities is diverse and extensive. Some typical examples of organisations may include: manufacturing plants of consumer products, computer peripherals manufacturers/maintenance companies, automobile manufacturing industries, large scale manufacturing/maintenance industries such as Boeing, instrumentation industries, communication companies, research organisations, food and food processing industries and software development companies.

### Overview

This course bridges the three, traditionally separate, disciplines of Mechanical Engineering, Electrical and Electronic Engineering, and Computing and provides the combined skills required for the design, development, construction and service of modern systems and equipment. Advanced units emphasis the integration of knowledge and skills that impact on all aspects of the design, construction and service of modern computer controlled machines. In the

final year a one-semester industry project will integrate and reinforce what has been learned through application in a real world setting.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Minors

For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised engineering units.

### Special Course Requirements

Students must obtain at least 60 days of industrial work experience in an engineering environment as part of the Work Integrated Learning unit.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Further Information

School of Engineering Systems - Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Deferment

All domestic applicants offered admission to undergraduate award courses may apply to defer commencement of their study. A deferment application will not normally be considered for courses where specific admission requirements apply, for example submission of folios or undertaking auditions. Applicants are not entitled to hold a deferred place and hold a place in another QUT course for the same period.

Find out more on deferment.

### Full-time Course structure – Students commencing February 2010 onwards (Years 2 – 4)

#### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

#### Year 2 - Semester 1 (to be introduced in 2011)

ENB211	Dynamics
ENB212	Strength of Materials
ENB231	Materials and Manufacturing 1
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

#### Year 2 - Semester 2 (to be introduced in 2011)

ENB215	Fundamentals of Mechanical Design
--------	-----------------------------------

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB221	Fluid Mechanics
ENB331	Materials and Manufacturing 2
INB104	Building IT Systems

## Year 3 - Semester 1 (to be introduced in 2012)

ENB222	Thermodynamics 1
ENB240	Introduction To Electronics
ENB250	Electrical Circuits
ENB334	Design For Manufacturing

## Year 3 - Semester 2 (to be introduced in 2012)

ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB436	Mechatronics System Design
INB270	Programming

## Year 4 - Semester 1 (to be introduced in 2013)

ENB301	Instrumentation and Control
INB370	Software Development
INB860	Computational Intelligence for Control and Embedded Systems
MAB233	Engineering Mathematics 3
	OR
	Selective

## Year 4 - Semester 2 (to be introduced in 2013)

BEB701	Work Integrated Learning 1
BEB801	Project 1
BEB802	Project 2
ENB333	Operations Management

## Infomechatronics Selectives

ENB245	Introduction To Design and Professional Practice
ENB457	Controls, Systems and Applications
	OR any INB unit with permission from Coordinator.

## Full-time Course structure – Students commencing Mid-Year 2010 onwards (Years 2 – 5)

### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

## Year 2 - Semester 1 (to be introduced in 2011)

ENB211	Dynamics
ENB212	Strength of Materials
ENB231	Materials and Manufacturing 1
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

## Year 2 - Semester 2 (to be introduced in 2011)

ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability
ENB331	Materials and Manufacturing 2
INB104	Building IT Systems

## Year 3 - Semester 1 (to be introduced in 2012)

ENB222	Thermodynamics 1
ENB240	Introduction To Electronics
ENB250	Electrical Circuits
ENB334	Design For Manufacturing

## Year 3 - Semester 2 (to be introduced in 2012)

ENB215	Fundamentals of Mechanical Design
ENB221	Fluid Mechanics
ENB243	Linear Circuits and Systems
INB270	Programming

## Year 4 - Semester 1 (to be introduced in 2013)

ENB301	Instrumentation and Control
INB370	Software Development
INB860	Computational Intelligence for Control and Embedded Systems

## Year 4 - Semester 2 (to be introduced in 2013)

ENB244	Microprocessors and Digital Systems
ENB333	Operations Management
ENB436	Mechatronics System Design
MAB233	Engineering Mathematics 3
	OR
	Selective

## Year 5 - Semester 1 (to be introduced in 2014)

BEB701	Work Integrated Learning 1
BEB801	Project 1
BEB802	Project 2

## Infomechatronics Selectives

ENB245	Introduction To Design and Professional Practice
ENB457	Controls, Systems and Applications
	OR any INB unit with permission from Coordinator.

## Full-time Course structure - Commencing February 2009

### Year 1 - Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

OR  
MAB180 Engineering Mathematics 1B

ENB352 Communication Environments For Embedded Systems

ENB457 Controls, Systems and Applications

OR students may choose any advanced-level IT unit with Subject Area Coordinator/Course Coordinator approval.

## Year 1 - Semester 2

ENB102 Engineering Mechanics 2

ENB103 Electrical Engineering

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

PCB136 Engineering Physics 1C

## Full-time Course structure - Commencing February 2006 - 2008

### Year 1 - Semester 1

BEB100 Introducing Professional Learning

MAB131 Engineering Mathematics 1A

OR

MAB180 Engineering Mathematics 1B

PCB136 Engineering Physics 1C

INB870 Introduction to Technical Computing

OR (prior to 2008)

ITB849 Introduction to Technical Computing

## Year 2 - Semester 1

ENB211 Dynamics

ENB231 Materials and Manufacturing 1

ENB240 Introduction To Electronics

INB104 Building IT Systems

## Year 2 - Semester 2

BEB200 Introducing Sustainability

ENB201 Fluid Mechanics

ENB215 Fundamentals of Mechanical Design

INB270 Programming

### Year 1 - Semester 2

ENB101 Engineering Mechanics 1

ENB103 Electrical Engineering

ENB104 Engineering Materials

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

## Year 3 - Semester 1

BEB701 Work Integrated Learning 1

ENB340 Power Systems and Machines

INB370 Software Development

MAB233 Engineering Mathematics 3

### Year 2 - Semester 1

ENB211 Dynamics

ENB231 Materials and Manufacturing 1

ENB240 Introduction To Electronics

INB371 Data Structures and Algorithms

OR (prior to 2008)

ITB749 Scientific Programming

## Year 3 - Semester 2

ENB222 Thermodynamics 1

ENB243 Linear Circuits and Systems

ENB244 Microprocessors and Digital Systems

ENB331 Materials and Manufacturing 2

### Year 2 - Semester 2

BEB200 Introducing Sustainability

ENB102 Engineering Mechanics 2

ENB215 Fundamentals of Mechanical Design

ENB222 Thermodynamics 1

## Year 4 - Semester 1

ENB301 Instrumentation and Control

ENB333 Operations Management

ENB334 Design For Manufacturing

INB860 Computational Intelligence for Control and Embedded Systems

## Year 4 - Semester 2

BEB801 Project 1

BEB802 Project 2

ENB436 Mechatronics System Design

Applications Minor Selective

### Year 3 - Semester 1

ENB331 Materials and Manufacturing 2

ENB333 Operations Management

ENB340 Power Systems and Machines

MAB233 Engineering Mathematics 3

## Applications Minor Selectives

ENB245 Introduction To Design and Professional Practice

ENB350 Real-time Computer-based Systems

### Year 3 - Semester 2

ENB201 Fluid Mechanics

ENB243 Linear Circuits and Systems

ENB244 Microprocessors and Digital Systems



ENB334 Design For Manufacturing

## Year 4 - Semester 1

ENB301 Instrumentation and Control

ENB436 Mechatronics System Design  
Applications Minor Selective

INB860 Computational Intelligence for Control and  
Embedded Systems  
OR (prior to 2008)

ITB847 Computational Intelligence for Control and  
Embedded Systems

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1

BEB801 Project 1

BEB802 Project 2

INB365 Systems Programming  
OR (prior to 2008)

ITB745 Operating Systems

## Applications Minor Selectives

ENB245 Introduction To Design and Professional  
Practice

ENB350 Real-time Computer-based Systems

ENB352 Communication Environments For Embedded  
Systems

ENB457 Controls, Systems and Applications  
OR students may choose any advanced-level  
IT unit with Subject Area Coordinator/Course  
Coordinator approval.

### Potential Careers:

Engineer, Manufacturer, Mechanical Engineer.

## Bachelor of Engineering (Mechanical) (EN40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056529D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 412502

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-lyer

**Discipline coordinator:** Dr Gary Chadwick

**Campus:** Gardens Point

### Recommended Study

Chemistry, Maths C and Physics.

### Career Outcomes

The Bachelor of Engineering (Mechanical) provides a sound education in the basic engineering sciences, synthesis and design, engineering management functions, and the social, economic and ethical aspects of engineering practice. Graduates from this degree may find employment in a variety of roles: consultant, project manager or technical adviser where they maybe involved in the operation of large, integrated energy-based plants such as mining, power stations, sugar factories, oil refineries etc. Others may work under the guidance of more experienced staff selecting equipment, installing and commissioning plants. Some graduates will go into design offices or manufacturing plants where they will be concerned principally with the logistics of production and the efficient management of people and systems.

### Overview

This degree offers a balanced mix of theory and practice with the objective of preparing graduates for the work environment. Students will receive a thorough grounding in the engineering sciences and hands-on, practical experience in real world problem solving and application of theory to suit industry needs.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Second Major and Minors

You will have the opportunity to undertaken either a 2nd major or two minors. For professional recognition you will

undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised civil engineering units. The second minor must be taken from an approved list outside your discipline.

Please refer to the rules at the following location before making your selection:

<http://www.bee.qut.edu.au/study/current/2majormin/>

### MECHANICAL ENGINEERING Second Major and Minor Options

**Second Major:**

Automotive Engineering

Engineering Management

Heavy Mechanical Engineering

**Minors:**

BEE Applications Minor

*plus*

A minor from anywhere in QUT that is outside of the course.

### Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Mechanical) must complete at least 60 days of industrial experience/practice in an engineering environment as part of the Work Integrated Learning unit.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Further Information

School of Engineering Systems - Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Full-time Course structure – Students commencing February 2010 onwards (Years 2 – 4)

#### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

#### Year 2 - Semester 1 (to be introduced in 2011)

ENB211	Dynamics
ENB212	Strength of Materials
ENB231	Materials and Manufacturing 1

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

MAB127 Mathematics for Engineering 2  
OR

MAB233 Engineering Mathematics 3

## Year 2 - Semester 2 (to be introduced in 2011)

ENB205 Electrical and Computer Engineering

ENB215 Fundamentals of Mechanical Design

ENB221 Fluid Mechanics

ENB331 Materials and Manufacturing 2

### Please note:

Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

## Year 3 - Semester 1 (to be introduced in 2012)

ENB222 Thermodynamics 1

ENB311 Stress Analysis

ENB312 Dynamics of Machinery

ENB316 Design of Machine Elements

## Year 3 - Semester 2 (to be introduced in 2012)

ENB313 Automatic Control

ENB317 Design and Maintenance of Machinery

ENB321 Fluids Dynamics

MAB233 Engineering Mathematics 3

OR

Selective

## Year 4 - Semester 1 (to be introduced in 2013)

BEB801 Project 1

ENB421 Thermodynamics 2

Second Major/Minor unit

Second Major/Minor unit

## Year 4 - Semester 2 (to be introduced in 2013)

BEB701 Work Integrated Learning 1

BEB802 Project 2

Second Major/Minor unit

Second Major/Minor unit

## Mechanical Engineering Selectives

ENB314 Industrial Noise and Vibration

ENB333 Operations Management

ENB336 Industrial Engineering

ENB422 Energy Management

ENB423 Heating, Ventilation and Air-Conditioning

ENB432 Engineering Asset Management and Maintenance

ENB433 Plant and Process Design

ENB434 Tribology

ENB435 Computer Integrated Manufacturing

## Full-time Course structure – Students commencing Mid-Year 2010 onwards (Years 2 – 5)

### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

## Year 2 - Semester 1 (to be introduced in 2011)

ENB211 Dynamics

ENB212 Strength of Materials

MAB127 Mathematics for Engineering 2

OR

MAB233 Engineering Mathematics 3

## Year 2 - Semester 2 (to be introduced in 2011)

ENB150 Introducing Engineering Design

ENB200 Introducing Sustainability

ENB205 Electrical and Computer Engineering

ENB221 Fluid Mechanics

### Please note:

Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

## Year 3 - Semester 1 (to be introduced in 2012)

ENB222 Thermodynamics 1

ENB231 Materials and Manufacturing 1

ENB311 Stress Analysis

MAB233 Engineering Mathematics 3

OR

Selective

## Year 3 - Semester 2 (to be introduced in 2012)

ENB215 Fundamentals of Mechanical Design

ENB321 Fluids Dynamics

ENB331 Materials and Manufacturing 2

Second Major/Minor unit

## Year 4 - Semester 1 (to be introduced in 2013)

ENB312 Dynamics of Machinery

ENB316 Design of Machine Elements

ENB421 Thermodynamics 2

## Year 4 - Semester 2 (to be introduced in 2013)

BEB801 Project 1

ENB313 Automatic Control

ENB317 Design and Maintenance of Machinery

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Second Major/Minor unit

Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

## Year 5 - Semester 1 (to be introduced in 2014)

- BEB701 Work Integrated Learning 1
- BEB802 Project 2
- Second Major/Minor unit
- Second Major/Minor unit

## Mechanical Engineering Selectives

- ENB314 Industrial Noise and Vibration
- ENB333 Operations Management
- ENB336 Industrial Engineering
- ENB422 Energy Management
- ENB423 Heating, Ventilation and Air-Conditioning
- ENB432 Engineering Asset Management and Maintenance
- ENB433 Plant and Process Design
- ENB434 Tribology
- ENB435 Computer Integrated Manufacturing

## Full-time Course structure - Commencing February 2009

### Year 1 - Semester 1

- BEB100 Introducing Professional Learning
- ENB101 Engineering Mechanics 1
- ENB104 Engineering Materials
- MAB131 Engineering Mathematics 1A  
OR
- MAB180 Engineering Mathematics 1B

### Year 1 - Semester 2

- ENB102 Engineering Mechanics 2
- ENB103 Electrical Engineering
- MAB132 Engineering Mathematics 2A  
OR
- MAB182 Engineering Mathematics 2B
- PCB136 Engineering Physics 1C

### Year 2 - Semester 1

- ENB105 Electrical and Computer Engineering
- ENB211 Dynamics
- ENB231 Materials and Manufacturing 1
- MAB233 Engineering Mathematics 3

### Year 2 - Semester 2

- BEB200 Introducing Sustainability
- ENB201 Fluid Mechanics
- ENB215 Fundamentals of Mechanical Design
- ENB222 Thermodynamics 1

Please note:

### Year 3 - Semester 1

- ENB311 Stress Analysis
- ENB313 Automatic Control
- ENB316 Design of Machine Elements  
Second Major/Minor unit

### Year 3 - Semester 2

- ENB312 Dynamics of Machinery
- ENB317 Design and Maintenance of Machinery
- ENB321 Fluids Dynamics
- ENB331 Materials and Manufacturing 2

### Year 4 - Semester 1

- BEB801 Project 1
- ENB421 Thermodynamics 2  
Applications Minor Selective  
Second Major/Minor unit

### Year 4 - Semester 2

- BEB701 Work Integrated Learning 1
- BEB802 Project 2  
Second Major/Minor unit  
Second Major/Minor unit

### Applications Minor Selectives

- BSB115 Management
- ENB314 Industrial Noise and Vibration
- ENB333 Operations Management
- ENB336 Industrial Engineering
- ENB422 Energy Management
- ENB423 Heating, Ventilation and Air-Conditioning
- ENB432 Engineering Asset Management and Maintenance
- ENB433 Plant and Process Design
- ENB434 Tribology
- ENB435 Computer Integrated Manufacturing

## Full-time Course structure - Commencing February 2006 - 2008

### Year 1 - Semester 1

- BEB100 Introducing Professional Learning
- ENB101 Engineering Mechanics 1
- MAB131 Engineering Mathematics 1A  
OR
- MAB180 Engineering Mathematics 1B

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

PCB136 Engineering Physics 1C

## Year 1 - Semester 2

ENB102 Engineering Mechanics 2

ENB103 Electrical Engineering

ENB104 Engineering Materials

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

## Year 2 - Semester 1

ENB105 Electrical and Computer Engineering

ENB211 Dynamics

ENB231 Materials and Manufacturing 1

MAB233 Engineering Mathematics 3

## Year 2 - Semester 2

BEB200 Introducing Sustainability

ENB201 Fluid Mechanics

ENB215 Fundamentals of Mechanical Design

ENB222 Thermodynamics 1

## Please note:

Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

## Year 3 - Semester 1

ENB301 Instrumentation and Control

ENB311 Stress Analysis

ENB316 Design of Machine Elements

ENB331 Materials and Manufacturing 2

## Year 3 - Semester 2

ENB312 Dynamics of Machinery

ENB317 Design and Maintenance of Machinery

ENB321 Fluids Dynamics

Second Major/Minor unit

## Year 4 - Semester 1

BEB801 Project 1

ENB421 Thermodynamics 2

Applications Minor Selective

Second Major/Minor unit

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1

BEB802 Project 2

Second Major/Minor unit

Second Major/Minor unit

## Applications Minor Selectives

BSB115 Management

ENB333 Operations Management

ENB336 Industrial Engineering

ENB422 Energy Management

ENB432 Engineering Asset Management and Maintenance

ENB435 Computer Integrated Manufacturing

## Full-time Course structure - Commencing Mid-Year 2006 - 2008

### Year 1 - Semester 2

ENB101 Engineering Mechanics 1

ENB103 Electrical Engineering

ENB104 Engineering Materials

MAB131 Engineering Mathematics 1A

OR

MAB180 Engineering Mathematics 1B

PCB136 Engineering Physics 1C

### Year 1 - Summer

ENB102 Engineering Mechanics 2

MAB182 Engineering Mathematics 2B

### Year 2 - Semester 1

BEB100 Introducing Professional Learning

ENB105 Electrical and Computer Engineering

ENB211 Dynamics

ENB231 Materials and Manufacturing 1

MAB233 Engineering Mathematics 3

### Year 2 - Semester 2

BEB200 Introducing Sustainability

ENB201 Fluid Mechanics

ENB215 Fundamentals of Mechanical Design

ENB222 Thermodynamics 1

## Please note:

Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

### Year 3 - Semester 1

ENB301 Instrumentation and Control

ENB311 Stress Analysis

ENB316 Design of Machine Elements

ENB331 Materials and Manufacturing 2

### Year 3 - Semester 2

ENB312 Dynamics of Machinery

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB317	Design and Maintenance of Machinery
ENB321	Fluids Dynamics
	Second Major/Minor unit

## Year 4 - Semester 1

BEB801	Project 1
ENB421	Thermodynamics 2
	Applications Minor Selective
	Second Major/Minor unit

## Year 4 - Semester 2

BEB701	Work Integrated Learning 1
BEB802	Project 2
	Second Major/Minor unit
	Second Major/Minor unit

## Applications Minor Selectives

BSB115	Management
ENB333	Operations Management
ENB336	Industrial Engineering
ENB422	Energy Management
ENB432	Engineering Asset Management and Maintenance
ENB435	Computer Integrated Manufacturing

## Course structure - Automotive Engineering 2nd major (commencing 2010 onwards)

### Year 1 - Semester 1

ENB100	Introducing Professional Learning
ENB110	Engineering Statics and Materials
ENB130	Mechanical and Thermal Energy
MAB125	Foundations of Engineering Mathematics
	OR
MAB126	Mathematics for Engineering 1

### Year 1 - Semester 2

ENB120	Electrical Energy and Measurements
ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability
MAB126	Mathematics for Engineering 1
	OR
MAB127	Mathematics for Engineering 2

### Year 2 - Semester 1 (to be introduced in 2011)

ENB211	Dynamics
ENB212	Strength of Materials
ENB231	Materials and Manufacturing 1
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

### Year 2 - Semester 2 (to be introduced in 2011)

ENB205	Electrical and Computer Engineering
ENB215	Fundamentals of Mechanical Design
ENB221	Fluid Mechanics
ENB331	Materials and Manufacturing 2

### Please note:

Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

### Year 3 - Semester 1 (to be introduced in 2012)

ENB222	Thermodynamics 1
ENB311	Stress Analysis
ENB312	Dynamics of Machinery
ENB316	Design of Machine Elements

### Year 3 - Semester 2 (to be introduced in 2012)

ENB313	Automatic Control
ENB317	Design and Maintenance of Machinery
ENB321	Fluids Dynamics
MAB233	Engineering Mathematics 3
	OR
	Selective

### Year 4 - Semester 1 (to be introduced in 2013)

BEB801	Project 1
ENB315	Motor Racing Vehicle Design
ENB421	Thermodynamics 2
ENB432	Engineering Asset Management and Maintenance

### Year 4 - Semester 2 (to be introduced in 2013)

BEB701	Work Integrated Learning 1
BEB802	Project 2
	Selective
	Selective

### Automotive Engineering Selectives

ENB314	Industrial Noise and Vibration
ENB333	Operations Management
ENB433	Plant and Process Design
ENB434	Tribology
DNB202	Product Usability

## Course structure - Automotive Engineering 2nd major (commencing 2009)

### Year 1, Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A OR
MAB180	Engineering Mathematics 1B

## Year 1, Semester 2

ENB102	Engineering Mechanics 2
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A OR
MAB182	Engineering Mathematics 2B
PCB136	Engineering Physics 1C

## Year 2, Semester 1

ENB105	Electrical and Computer Engineering
ENB211	Dynamics
ENB231	Materials and Manufacturing 1
MAB233	Engineering Mathematics 3

## Year 2, Semester 2

BEB200	Introducing Sustainability
ENB201	Fluid Mechanics
ENB215	Fundamentals of Mechanical Design
ENB222	Thermodynamics 1

## Year 3, Semester 1

ENB311	Stress Analysis
ENB313	Automatic Control
ENB316	Design of Machine Elements
ENB333	Operations Management

## Year 3, Semester 2

ENB312	Dynamics of Machinery
ENB317	Design and Maintenance of Machinery
ENB321	Fluids Dynamics
ENB331	Materials and Manufacturing 2

## Year 4, Semester 1

BEB701	Work Integrated Learning 1
ENB315	Motor Racing Vehicle Design
ENB421	Thermodynamics 2
ENB432	Engineering Asset Management and Maintenance

## Year 4, Semester 2

BEB801	Project 1
BEB802	Project 2
DNB202	Product Usability
ENB334	Design For Manufacturing

## Course structure - Automotive Engineering 2nd major (commencing 2006-8)

## Year 1, Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A OR
MAB180	Engineering Mathematics 1B

## Year 1, Semester 2

ENB102	Engineering Mechanics 2
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A OR
MAB182	Engineering Mathematics 2B
PCB136	Engineering Physics 1C

## Year 2, Semester 1

ENB105	Electrical and Computer Engineering
ENB211	Dynamics
ENB231	Materials and Manufacturing 1
MAB233	Engineering Mathematics 3

## Year 2, Semester 2

BEB200	Introducing Sustainability
ENB201	Fluid Mechanics
ENB215	Fundamentals of Mechanical Design
ENB222	Thermodynamics 1

## Year 3, Semester 1

ENB301	Instrumentation and Control
ENB311	Stress Analysis
ENB316	Design of Machine Elements
ENB331	Materials and Manufacturing 2

## Year 3, Semester 2

ENB312	Dynamics of Machinery
ENB317	Design and Maintenance of Machinery
ENB321	Fluids Dynamics
ENB334	Design For Manufacturing

## Year 4, Semester 1

ENB315	Motor Racing Vehicle Design
ENB333	Operations Management
ENB421	Thermodynamics 2
ENB432	Engineering Asset Management and Maintenance

## Year 4, Semester 2

BEB701	Work Integrated Learning 1
BEB801	Project 1

BEB802 Project 2  
 DNB202 Product Usability

ENB321 Fluids Dynamics  
 MAB233 Engineering Mathematics 3  
 OR  
 Selective

**Course structure - Engineering Management 2nd major (commencing 2010 onwards)**

**Year 1 - Semester 1**

ENB100 Introducing Professional Learning  
 ENB110 Engineering Statics and Materials  
 ENB130 Mechanical and Thermal Energy  
 MAB125 Foundations of Engineering Mathematics  
 OR  
 MAB126 Mathematics for Engineering 1

**Year 1 - Semester 2**

ENB120 Electrical Energy and Measurements  
 ENB150 Introducing Engineering Design  
 ENB200 Introducing Sustainability  
 MAB126 Mathematics for Engineering 1  
 OR  
 MAB127 Mathematics for Engineering 2

**Year 2 - Semester 1 (to be introduced in 2011)**

ENB211 Dynamics  
 ENB212 Strength of Materials  
 ENB231 Materials and Manufacturing 1  
 MAB127 Mathematics for Engineering 2  
 OR  
 MAB233 Engineering Mathematics 3

**Year 2 - Semester 2 (to be introduced in 2011)**

ENB205 Electrical and Computer Engineering  
 ENB215 Fundamentals of Mechanical Design  
 ENB221 Fluid Mechanics  
 ENB331 Materials and Manufacturing 2

**Please note:**

Students wishing to undertake CEED based Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

**Year 3 - Semester 1 (to be introduced in 2012)**

ENB222 Thermodynamics 1  
 ENB311 Stress Analysis  
 ENB312 Dynamics of Machinery  
 ENB316 Design of Machine Elements

**Year 3 - Semester 2 (to be introduced in 2012)**

ENB313 Automatic Control  
 ENB317 Design and Maintenance of Machinery

**Year 4 - Semester 1 (to be introduced in 2013)**

ENB336 Industrial Engineering  
 ENB421 Thermodynamics 2  
 ENB432 Engineering Asset Management and Maintenance  
 Selective

**Year 4 - Semester 2 (to be introduced in 2013)**

BEB701 Work Integrated Learning 1  
 BEB801 Project 1  
 BEB802 Project 2  
 ENB333 Operations Management

**Engineering Management Selectives**

Semester 1:

ENB423 Heating, Ventilation and Air-Conditioning  
 ENB435 Computer Integrated Manufacturing  
 Any Business unit with permission from coordinator.

Semester 2:

ENB422 Energy Management  
 ENB433 Plant and Process Design  
 ENB434 Tribology  
 Any Business unit with permission from coordinator.

**Course structure - Engineering Management 2nd major (commencing 2009)**

Engineering Management major students are expected to do an industry-based project such as CEED combining Project 1, Project 2, and Work Integrated Learning 1 units. These units are to be done concurrently.

**Year 1, Semester 1**

BEB100 Introducing Professional Learning  
 ENB101 Engineering Mechanics 1  
 ENB104 Engineering Materials  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1B

**Year 1, Semester 2**

ENB102 Engineering Mechanics 2  
 ENB103 Electrical Engineering  
 MAB132 Engineering Mathematics 2A  
 OR

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

MAB182 Engineering Mathematics 2B

PCB136 Engineering Physics 1C

Engineering Management major students are expected to do an industry-based project such as CEED combining Project 1, Project 2, and Work Integrated Learning 1 units. These units are to be done concurrently.

## Year 2, Semester 1

ENB105 Electrical and Computer Engineering

ENB211 Dynamics

ENB231 Materials and Manufacturing 1

MAB233 Engineering Mathematics 3

## Year 2, Semester 2

BEB200 Introducing Sustainability

ENB201 Fluid Mechanics

ENB215 Fundamentals of Mechanical Design

ENB222 Thermodynamics 1

## Year 3, Semester 1

ENB311 Stress Analysis

ENB313 Automatic Control

ENB316 Design of Machine Elements

ENB333 Operations Management

## Year 3, Semester 2

ENB312 Dynamics of Machinery

ENB321 Fluids Dynamics

ENB331 Materials and Manufacturing 2

ENB336 Industrial Engineering

## Year 4, Semester 1

BEB701 Work Integrated Learning 1

ENB421 Thermodynamics 2

ENB432 Engineering Asset Management and Maintenance

Second Major Selective

## Year 4, Semester 2

BEB801 Project 1

BEB802 Project 2

ENB317 Design and Maintenance of Machinery

Second Major Selective

## Second Major Selectives

ENB422 Energy Management

ENB423 Heating, Ventilation and Air-Conditioning

ENB433 Plant and Process Design

ENB434 Tribology

ENB435 Computer Integrated Manufacturing

OR any Business unit approved by the coordinator.

## Course structure - Engineering Management 2nd major (commencing 2006-8)

## Year 1, Semester 1

BEB100 Introducing Professional Learning

ENB101 Engineering Mechanics 1

ENB104 Engineering Materials

MAB131 Engineering Mathematics 1A

OR

MAB180 Engineering Mathematics 1B

## Year 1, Semester 2

ENB102 Engineering Mechanics 2

ENB103 Electrical Engineering

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

PCB136 Engineering Physics 1C

## Year 2, Semester 1

ENB105 Electrical and Computer Engineering

ENB211 Dynamics

ENB231 Materials and Manufacturing 1

MAB233 Engineering Mathematics 3

## Year 2, Semester 2

BEB200 Introducing Sustainability

ENB201 Fluid Mechanics

ENB215 Fundamentals of Mechanical Design

ENB222 Thermodynamics 1

## Year 3, Semester 1

ENB301 Instrumentation and Control

ENB311 Stress Analysis

ENB316 Design of Machine Elements

ENB331 Materials and Manufacturing 2

## Year 3, Semester 2

ENB312 Dynamics of Machinery

ENB317 Design and Maintenance of Machinery

ENB321 Fluids Dynamics

ENB336 Industrial Engineering

## Year 4, Semester 1

ENB333 Operations Management

ENB421 Thermodynamics 2

ENB432 Engineering Asset Management and Maintenance

Second Major Selective

## Year 4, Semester 2

BEB701	Work Integrated Learning 1
BEB801	Project 1
BEB802	Project 2
	Second Major Selective

## Second Major Selectives

	Semester 1:
BSB126	Marketing
ENB435	Computer Integrated Manufacturing
	Semester 2:
BSB115	Management
ENB422	Energy Management
	Students may choose any other unit related to management approved by the Subject Area Coordinator.

## Course structure - Heavy Mechanical Engineering 2nd major (commencing 2010 onwards)

### Year 1 - Semester 1

ENB100	Introducing Professional Learning
ENB110	Engineering Statics and Materials
ENB130	Mechanical and Thermal Energy
MAB125	Foundations of Engineering Mathematics
	OR
MAB126	Mathematics for Engineering 1

### Year 1 - Semester 2

ENB120	Electrical Energy and Measurements
ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability
MAB126	Mathematics for Engineering 1
	OR
MAB127	Mathematics for Engineering 2

### Year 2 - Semester 1 (to be introduced in 2011)

ENB211	Dynamics
ENB212	Strength of Materials
ENB231	Materials and Manufacturing 1
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

### Year 2 - Semester 2 (to be introduced in 2011)

ENB205	Electrical and Computer Engineering
ENB215	Fundamentals of Mechanical Design
ENB221	Fluid Mechanics
ENB331	Materials and Manufacturing 2

### Please note:

Students wishing to undertake CEED based

Industry Project should consult the Subject Area Coordinator to provide a program for the final 2 years. CEED program requires that you undertake units BEB701, BEB801 and BEB802 together in either Semester 1 or 2.

### Year 3 - Semester 1 (to be introduced in 2012)

ENB222	Thermodynamics 1
ENB311	Stress Analysis
ENB312	Dynamics of Machinery
ENB316	Design of Machine Elements

### Year 3 - Semester 2 (to be introduced in 2012)

ENB313	Automatic Control
ENB314	Industrial Noise and Vibration
ENB317	Design and Maintenance of Machinery
ENB321	Fluids Dynamics

### Year 4 - Semester 1 (to be introduced in 2013)

BEB801	Project 1
ENB421	Thermodynamics 2
ENB423	Heating, Ventilation and Air-Conditioning
MAB233	Engineering Mathematics 3
	OR
	Selective

### Year 4 - Semester 2 (to be introduced in 2013)

BEB701	Work Integrated Learning 1
BEB802	Project 2
ENB433	Plant and Process Design
ENB434	Tribology

### Heavy Mechanical Engineering Selectives

	Semester 1:
ENB336	Industrial Engineering
ENB432	Engineering Asset Management and Maintenance
ENB435	Computer Integrated Manufacturing

### Potential Careers:

Engineer, Mechanical Engineer.

## Bachelor of Engineering (Medical) (EN40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056529D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**QTAC code:** 412502

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Gary Chadwick

**Campus:** Gardens Point

### Recommended Study

Chemistry, Maths C and Physics.

### Career Outcomes

Graduates from this degree may expect to find employment in hospitals as advisors to health and medical professionals, in firms concerned with the design, manufacture, supply and maintenance of medical, health and sporting equipment, occupational health agencies and in research institutions. In the early stages of their careers biomedical engineers might expect to be involved in the innovative use of technology, in the design of new devices and the assessment of appropriate engineering solutions to medical problems. More experienced biomedical engineers manage Biomedical Engineering Departments in hospitals and manufacturing companies and lead teams of engineers and technologists in the development of engineering solutions to improve health care.

### Overview

This degree integrates physical, chemical, mathematical, and computational sciences and engineering principles to study human biology, medicine, human behaviour and health. It will provide you with the skills to design, manufacture, install, monitor and maintain medical and surgical equipment and to provide advice on engineering matters to medical and allied staff. Current issues such as total quality management and health legislation are also covered. In the final year, students undertake a design project in the biomedical field.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Special Course Requirements

Students must obtain at least 60 days of industrial employment in an engineering environment as part of the Work Integrated Learning unit. Half of this experience must be in an industry related to Biomedical Engineering.

### Minors

For professional recognition you will undertake an applications minor which consists of a workplace intergrated learning unit, a project unit and two specialised engineering units.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Further Information

School of Engineering Systems - Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Deferment

All domestic applicants offered admission to undergraduate award courses may apply to defer commencement of their study. A deferment application will not normally be considered for courses where specific admission requirements apply, for example submission of folios or undertaking auditions. Applicants are not entitled to hold a deferred place and hold a place in another QUT course for the same period.

Find out more on deferment.

### Full-time Course structure – Students commencing February 2010 onwards (Years 2 – 4)

#### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

#### Year 2 - Semester 1 (to be introduced in 2011)

ENB211	Dynamics
ENB212	Strength of Materials
ENB231	Materials and Manufacturing 1
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

#### Year 2 - Semester 2 (to be introduced in 2011)

ENB205	Electrical and Computer Engineering
ENB215	Fundamentals of Mechanical Design
ENB221	Fluid Mechanics
LSB255	Human Anatomy

#### Year 3 - Semester 1 (to be introduced in 2012)

ENB222	Thermodynamics 1
--------	------------------



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB311	Stress Analysis
ENB319	Biomechanical Engineering Design
LSB451	Human Physiology

## Year 3 - Semester 2 (to be introduced in 2012)

ENB313	Automatic Control
ENB322	Biofluids
ENB338	Biomaterials
MAB233	Engineering Mathematics 3
	OR
	Selective

## Year 4 - Semester 1 (to be introduced in 2013)

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB318	Biomechanical Engineering Systems
	Selective

## Year 4 - Semester 2 (to be introduced in 2013)

BEB802	Project 2
ENB335	Modelling and Simulation For Medical Engineers
ENB437	Health Legislation in the Medical Environment
PCB605	Biomedical Instrumentation

## Medical Engineering Selectives

BSB115	Management
HMB384	Injury Prevention and Rehabilitation
MAB220	Computational Mathematics 1
MAB422	Mathematical Modelling
PCB593	Digital Image Processing
PCN112	Medical Imaging Science
PCN211	Physics of Medical Imaging
PUB112	Workplace Health and Safety
PYB012	Psychology
SCB384	Forensic Sciences - From Crime Scene to Court

## Full-time Course structure – Students commencing Mid-Year 2010 onwards (Years 2 – 5)

### Please Note:

For 1st year enrolment program please refer to EN40 Bachelor of Engineering course entry.

## Year 2 - Semester 1 (to be introduced in 2011)

ENB211	Dynamics
ENB212	Strength of Materials
ENB231	Materials and Manufacturing 1
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

## Year 2 - Semester 2 (to be introduced in 2011)

ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability
ENB221	Fluid Mechanics
LSB255	Human Anatomy

## Year 3 - Semester 1 (to be introduced in 2012)

ENB222	Thermodynamics 1
ENB311	Stress Analysis
LSB451	Human Physiology

## Year 3 - Semester 2 (to be introduced in 2012)

ENB205	Electrical and Computer Engineering
ENB215	Fundamentals of Mechanical Design
ENB322	Biofluids
ENB338	Biomaterials

## Year 4 - Semester 1 (to be introduced in 2013)

ENB319	Biomechanical Engineering Design
MAB233	Engineering Mathematics 3
	OR
	Selective
	Selective

## Year 4 - Semester 2 (to be introduced in 2013)

ENB313	Automatic Control
ENB335	Modelling and Simulation For Medical Engineers
ENB437	Health Legislation in the Medical Environment
PCB605	Biomedical Instrumentation

## Year 5 - Semester 1 (to be introduced in 2014)

BEB701	Work Integrated Learning 1
BEB801	Project 1
BEB802	Project 2
ENB318	Biomechanical Engineering Systems

## Medical Engineering Selectives

BSB115	Management
HMB384	Injury Prevention and Rehabilitation
MAB220	Computational Mathematics 1
MAB422	Mathematical Modelling
PCB593	Digital Image Processing
PCN112	Medical Imaging Science
PCN211	Physics of Medical Imaging
PUB112	Workplace Health and Safety
PYB012	Psychology
SCB384	Forensic Sciences - From Crime Scene to Court

## Full-time Course structure - Commencing February 2009



## Year 1 - Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A OR
MAB180	Engineering Mathematics 1B

## Year 1 - Semester 2

ENB102	Engineering Mechanics 2
ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A OR
MAB182	Engineering Mathematics 2B
PCB136	Engineering Physics 1C

## Year 2 - Semester 1

ENB211	Dynamics
LSB131	Anatomy
LSB451	Human Physiology
MAB233	Engineering Mathematics 3

## Year 2 - Semester 2

BEB200	Introducing Sustainability
ENB201	Fluid Mechanics
ENB215	Fundamentals of Mechanical Design
ENB222	Thermodynamics 1

## Year 3 - Semester 1

ENB231	Materials and Manufacturing 1
ENB311	Stress Analysis
ENB319	Biomechanical Engineering Design
ENB432	Engineering Asset Management and Maintenance

## Year 3 - Semester 2

ENB205	Electrical and Computer Engineering
ENB318	Biomechanical Engineering Systems
ENB322	Biofluids
ENB338	Biomaterials

## Year 4 - Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB301	Instrumentation and Control Applications Minor Selective

## Year 4 - Semester 2

BEB802	Project 2
ENB335	Modelling and Simulation For Medical Engineers

ENB437	Health Legislation in the Medical Environment
PCB605	Biomedical Instrumentation

## Applications Minor Selectives

BSB115	Management
HMB384	Injury Prevention and Rehabilitation
MAB220	Computational Mathematics 1
MAB422	Mathematical Modelling
PCB593	Digital Image Processing
PCN112	Medical Imaging Science
PCN211	Physics of Medical Imaging
PUB112	Workplace Health and Safety
PYB012	Psychology
SCB384	Forensic Sciences - From Crime Scene to Court

## Full-time Course structure - Commencing February 2007 & 2008

### Year 1 - Semester 1

ENB101	Engineering Mechanics 1
LSB131	Anatomy
MAB131	Engineering Mathematics 1A OR
MAB180	Engineering Mathematics 1B
PCB136	Engineering Physics 1C

### Year 1 - Semester 2

ENB102	Engineering Mechanics 2
ENB103	Electrical Engineering
ENB104	Engineering Materials
MAB132	Engineering Mathematics 2A OR
MAB182	Engineering Mathematics 2B

### Year 2 - Semester 1

BEB100	Introducing Professional Learning
ENB211	Dynamics
ENB231	Materials and Manufacturing 1
LSB451	Human Physiology

### Year 2 - Semester 2

BEB200	Introducing Sustainability
ENB201	Fluid Mechanics
ENB215	Fundamentals of Mechanical Design
ENB222	Thermodynamics 1

### Year 3 - Semester 1

ENB105	Electrical and Computer Engineering
ENB311	Stress Analysis
ENB319	Biomechanical Engineering Design

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

MAB233 Engineering Mathematics 3

MAB182 Engineering Mathematics 2B

## Year 3 - Semester 2

ENB318 Biomechanical Engineering Systems  
 ENB322 Biofluids  
 ENB338 Biomaterials  
 ENB437 Health Legislation in the Medical Environment

## Year 2 - Semester 1

ENB211 Dynamics  
 ENB231 Materials and Manufacturing 1  
 HMB274 Functional Anatomy  
 MMB211 Mechanics 1

## Year 4 - Semester 1

BEB801 Project 1  
 ENB301 Instrumentation and Control  
 ENB432 Engineering Asset Management and Maintenance  
 Applications Minor Selective

## Year 2 - Semester 2

BEB200 Introducing Sustainability  
 ENB201 Fluid Mechanics  
 ENB215 Fundamentals of Mechanical Design  
 ENB222 Thermodynamics 1

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1  
 BEB802 Project 2  
 ENB335 Modelling and Simulation For Medical Engineers  
 PCB605 Biomedical Instrumentation

## Year 3 - Semester 1

ENB105 Electrical and Computer Engineering  
 ENB311 Stress Analysis  
 ENB319 Biomechanical Engineering Design  
 MAB233 Engineering Mathematics 3

## Applications Minor Selectives

BSB115 Management  
 MAB220 Computational Mathematics 1  
 HMB384 Injury Prevention and Rehabilitation  
 MAB422 Mathematical Modelling  
 PCB593 Digital Image Processing  
 PCN112 Medical Imaging Science  
 PCN211 Physics of Medical Imaging  
 PUB112 Workplace Health and Safety  
 PYB012 Psychology  
 SCB384 Forensic Sciences - From Crime Scene to Court

## Year 3 - Semester 2

ENB318 Biomechanical Engineering Systems  
 ENB322 Biofluids  
 ENB335 Modelling and Simulation For Medical Engineers  
 ENB338 Biomaterials

## Year 4 - Semester 1

BEB801 Project 1  
 ENB301 Instrumentation and Control  
 ENB432 Engineering Asset Management and Maintenance  
 Applications Minor Selective

## Full-time Course structure - Commencing February 2006

### Year 1 - Semester 1

ENB101 Engineering Mechanics 1  
 LSB142 Human Anatomy and Physiology  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1  
 PCB136 Engineering Physics 1C

### Year 4 - Semester 2

BEB701 Work Integrated Learning 1  
 BEB802 Project 2  
 ENB437 Health Legislation in the Medical Environment  
 PCB605 Biomedical Instrumentation

### Year 1 - Semester 2

BEB100 Introducing Professional Learning  
 ENB103 Electrical Engineering  
 ENB104 Engineering Materials  
 MAB132 Engineering Mathematics 1B  
 OR

### Applications Minor Selectives

BSB115 Management  
 MAB220 Computational Mathematics 1  
 HMB384 Injury Prevention and Rehabilitation  
 MAB422 Mathematical Modelling  
 PCB593 Digital Image Processing  
 PCN112 Medical Imaging Science  
 PCN211 Physics of Medical Imaging  
 PUB112 Workplace Health and Safety  
 PYB012 Psychology  
 SCB384 Forensic Sciences - From Crime Scene to Court

**Potential Careers:**

Biomechanical Engineer, Biomedical Engineer, Engineer,  
Mechanical Engineer.

## Bachelor of Engineering (Telecommunications) (EN40)

Year offered: 2010

Admissions: No

CRICOS code: 056529D

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,800 (indicative) per semester

International Fees (indicative): 2010: \$12,000 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2009.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS WILL BE MADE AFTER 2009.

QTAC code: 412502

Past rank cut-off: 79

Past OP cut-off: 11

OP Guarantee: Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-lyer

**Discipline coordinator:** Dr Jasmine Banks

**Campus:** Gardens Point

### Discontinuation

From Semester 1 2010, this primary major has been discontinued. A second major in this discipline is currently under development.

### Recommended Study

Chemistry, Maths C and Physics.

### Career Outcomes

Telecommunications engineers are involved in the design, planning, commissioning and monitoring of complex telecommunications networks and broadcasting equipment. As a result of the rapid increase in telecommunications technology, Australia currently faces a shortage of experienced telecommunications engineers. Prospective employers include all the major carrier companies such as Telstra, Optus, Vodaphone, as well as mobile phone manufacturers such as Voxson, Motorola and Nokia. Other prospective employers are electronic equipment manufacturers and private and government bodies involved in Information Technology (IT), Telecommunication design and development.

### Overview

You will study a combination of units from Electrical Engineering, Computer Science, Software Engineering, Data Communications and Mathematics. Areas covered include innovative communications technologies including the Internet, wireless mobile communication systems, optical fibre communications, satellite communication systems ADSL and other fast modem technologies, Bluetooth and HDTV.

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Minors

For professional recognition you will undertake an Applications minor which consists of a Work Place Integrated Learning unit, a project unit and two specialised engineering units.

### Special Course Requirements

To graduate you must complete at least 60 days of approved industrial experience in an engineering environment as part of the Work Integrated Learning unit.

### Optional Pathways

If you enter the Bachelor of Engineering (Electrical)/Bachelor of Information Technology course or the Bachelor of Engineering (Computer Systems) course, subject to the approval of the course coordinator, and if you meet the minimum course requirements you can apply to change to the Bachelor of Engineering (Telecommunications) at the end of the first year without loss of credit.

### Further Information

School of Engineering Systems - Phone +61 7 3864 1993, Fax +61 7 3864 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Full-time Course structure - Commencing February 2009

#### Year 1 - Semester 1

BEB100	Introducing Professional Learning
ENB101	Engineering Mechanics 1
ENB104	Engineering Materials
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

**Year 1 - Semester 2**

BEB200 Introducing Sustainability  
 ENB103 Electrical Engineering  
 MAB132 Engineering Mathematics 2A  
 OR  
 MAB182 Engineering Mathematics 2B  
 PCB136 Engineering Physics 1C

**Year 2 - Semester 1**

ENB240 Introduction To Electronics  
 ENB242 Introduction To Telecommunications  
 INB104 Building IT Systems  
 MAB233 Engineering Mathematics 3

**Year 2 - Semester 2**

ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems  
 ENB245 Introduction To Design and Professional Practice  
 INB270 Programming

**Year 3 - Semester 1**

ENB301 Instrumentation and Control  
 ENB342 Signals, Systems and Transforms  
 ENB343 Fields, Transmission and Propagation  
 INB371 Data Structures and Algorithms

**Year 3 - Semester 2**

BEB701 Work Integrated Learning 1  
 ENB345 Advanced Design and Professional Practice  
 ENB346 Digital Communications  
 INB251 Networks

**Year 4 - Semester 1**

BEB801 Project 1  
 ENB440 RF and Applied Electromagnetics  
 INB350 Internet Protocols and Services  
 INB353 Wireless and Mobile Networks

**Year 4 - Semester 2**

BEB802 Project 2  
 ENB445 RF Communication Technologies  
 ENB446 Wireless Communications  
 ENB448 Signal Processing and Filtering

**Full-time Course structure - Commencing February 2006 - 2008**

**Year 1 - Semester 1**

BEB100 Introducing Professional Learning  
 MAB131 Engineering Mathematics 1A

OR  
 MAB180 Engineering Mathematics 1B  
 PCB136 Engineering Physics 1C  
 INB104 Building IT Systems  
 OR (prior to 2009)  
 ITB001 Problem Solving and Programming

**Year 1 - Semester 2**

BEB200 Introducing Sustainability  
 ENB103 Electrical Engineering  
 MAB132 Engineering Mathematics 2A  
 OR  
 MAB182 Engineering Mathematics 2B  
 INB270 Programming  
 OR (prior to 2009)  
 ITB003 Object Oriented Programming

**Year 2 - Semester 1**

ENB240 Introduction To Electronics  
 ENB242 Introduction To Telecommunications  
 MAB233 Engineering Mathematics 3  
 INB371 Data Structures and Algorithms  
 OR (prior to 2009)  
 ITB711 Programming Abstraction

**Year 2 - Semester 2**

ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems  
 ENB245 Introduction To Design and Professional Practice  
 INB251 Networks  
 OR (prior to 2009)  
 ITB006 Networks

**Year 3 - Semester 1**

ENB301 Instrumentation and Control  
 ENB342 Signals, Systems and Transforms  
 ENB343 Fields, Transmission and Propagation  
 INB350 Internet Protocols and Services

**Year 3 - Semester 2**

BEB701 Work Integrated Learning 1  
 ENB345 Advanced Design and Professional Practice  
 ENB346 Digital Communications  
 IT Elective

**Year 4 - Semester 1**

BEB801 Project 1  
 ENB440 RF and Applied Electromagnetics  
 INB353 Wireless and Mobile Networks  
 INB355 Cryptology and Protocols

**Year 4 - Semester 2**

BEB802	Project 2
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering

**IT Elective**

Students are allowed to choose an IT unit at the appropriate level approved by the Subject Area Coordinator.

**Potential Careers:**

Electrical and Computer Engineer, Electrical Engineer, Engineer.



## Bachelor of Engineering - Dean's Scholars Program (EN40)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056529D

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester (Sponsorship applies)

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester less sponsorship of approx \$3,800

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 412052

**Past rank cut-off:** 99 plus successful questionnaire. Please refer to Additional Entry Requirements. Bonus ranks applied to Engineering and Technology.

**Past OP cut-off:** 1 plus successful questionnaire. Please refer to Additional Entry Requirements. Bonus ranks applied to Engineering and Technology.

**Assumed knowledge:** English (4, VHA) and Maths B (4, VHA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 384

**Course coordinator:** Dr R.Mahalinga-lyer

**Campus:** Gardens Point

### Entry requirements

Applicants must be current Year 12 students or returning from a gap year.

### Additional Entry Requirements

Engineering Dean's Scholars applicants are required to complete a questionnaire which will be available via the **Engineering Dean's Scholars website**.

Shortlisted applicants may be required to attend an interview and will be notified of date and venue after the questionnaire closes.

### Fixed Closing Date

Applications for this program will close on **27 November 2009**.

### Recommended Study

Chemistry, Maths C, Physics and Engineering & Technology.

### Industry Sponsors

Bechtel  
Boeing  
Brisbane Airport Corporation  
Farallon Capital  
John Holland  
Laing O'Rourke  
Queensland Resources Council  
Robert Bird Group

### Domestic Student Fees

Students who enrol will receive a full scholarship that includes payment of all undergraduate Higher Education Contribution Scheme (HECS) monies for the bachelor program. A limited number of students who meet the conditions to progress to masters study within the faculty may continue their scholarship with the approval of the Assistant Dean, External Relations.

### Special Course Requirements

Dean's Scholars are expected to maintain a GPA of 6.0 or above and complete 60 days of Industry experience. For a copy of the program rules and regulations please contact the External Relations Portfolio of the Faculty of Built Environment and Engineering or [www.bee.qut.edu.au/study/scholarships/commencing/documents/2010%20DSP%20Scholarship%20Conditions.pdf](http://www.bee.qut.edu.au/study/scholarships/commencing/documents/2010%20DSP%20Scholarship%20Conditions.pdf)

### International Student Fees

International students successful in gaining entry will receive a scholarship for approximately one-third of their tuition fees (equivalent of HECS-HELP fees) for the Bachelor of Engineering course.

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Professional Recognition

Full professional accreditation from Engineers Australia has been given for this course.

### Further Information

The Faculty of Built Environment and Engineering Phone + 61 7 3138 4039, Fax + 61 7 3138 5280, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Deferment

QUT's deferment policy does not apply to this course.

### course structure

For course structures, please see EN40 Bachelor of Engineering

### Additional Information

The Dean's Scholars program offers students the opportunity to complete a Bachelor of Engineering degree. Students are also offered a range of opportunities including:

- Company site visits with major industry players
- An annual leadership dinner
- Events relating to industry and associations
- Close interaction with senior academics who have strong industry links
- Mentoring

Some industry sponsors also offer boardroom visits, which give Dean's Scholars the opportunity to experience engineering environments and high level engineering management.

### Potential Careers:

Bioengineer, Biomechanical Engineer, Biomedical Engineer, Civil Engineer, Computer Systems Engineer, Data Communications Specialist, Electrical and Computer Engineer, Electrical Engineer, Engineer, Environmental Engineer, Manager, Mechanical Engineer, Medical Biotechnologist, Medical Engineer, Rehabilitation Engineer, Software Engineer, Systems Analyst, Systems Manager, Systems Programmer.

## Master of Engineering (Systems) (EN50)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 060811A

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2010: Full fee tuition \$8,500 (indicative) per semester

**International Fees (indicative):** 2010: \$11,000 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)

**Discipline coordinator:** Dr Michael Mason (Course Leader) - Please refer course specific enquiries to Course Leader.

**Campus:** Gardens Point

### Overview

This course provides a developmental path for professional engineers to master skills in selected engineering disciplines and the interaction of those disciplines. It aims to enhance your skills in dealing with more complex engineering problems and interactions between engineering technical domains and the broader context in which they exist. Systems engineering is concerned with the design, operation and maintenance of electrical and mechanical systems that are employed in medical, aerospace, industrial settings, and in communications technology. This course advances your capabilities in information literacy, problem solving, application of theory, engineering design, communication, and interaction with other professionals. Early exit with a Graduate Diploma is available upon completion of two core units and two specialisation units in the course.

### Entry Requirements

A four-year full-time bachelor degree in a relevant engineering discipline area and a grade point average of 5.0 or more (on a 7-point scale) in that study, or an equivalent qualification determined by the Faculty. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language. Applicants from a non-relevant background may gain entry through successful completion of BN85, the Graduate Certificate in Built Environment and Engineering.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

### Career Outcomes

Graduates may choose to become a specialist systems engineering practitioner within their chosen professional field, or use the skills and knowledge gained to diversify their capabilities across a broader spectrum of systems-related disciplines. In particular, this course provides graduates with the skills and knowledge to become a

leader, manager and innovator in the chosen discipline. Graduates may typically work in government, semi-government or private organisations as electrical, mechanical, biomedical or avionics engineers.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Advanced Standing

Students completing two Masters courses in the Faculty of Built Environment and Engineering will be eligible to apply for a maximum of 24 credit points advanced standing in the second course on the basis of common units already completed. Such students will be required to complete a minimum of 72cp to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - February Entry

Year 1, Semester 1	
BEN610	Project Management Principles
ENN520	Advanced Signal Processing and Systems
ENN540	Engineering Optimisation
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

Year 1, Semester 2	
BEN710	Sustainable Practice in Built Environment and Engineering
BEN910	Integrated Project
ENN560	System Design
ENN580	Control Systems

### Full-time Course structure - Mid Year Entry

Year 1, Semester 2	
BEN710	Sustainable Practice in Built Environment and Engineering
ENN560	System Design
ENN580	Control Systems
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

Year 2, Semester 1	
BEN610	Project Management Principles
BEN910	Integrated Project
ENN520	Advanced Signal Processing and Systems

ENN540 Engineering Optimisation

## Part-time Course structure - February Entry

### Year 1, Semester 1

BEN610 Project Management Principles

ENN520 Advanced Signal Processing and Systems

### Year 1, Semester 2

ENN560 System Design

ENN580 Control Systems

### Year 2, Semester 1

ENN540 Engineering Optimisation

AMN435 Communication, Negotiation and Leadership  
OR

GSN235 Communication, Negotiation and Leadership

### Year 2, Semester 2

BEN710 Sustainable Practice in Built Environment and  
Engineering

BEN910 Integrated Project

## Part-time Course structure - Mid Year Entry

### Year 1, Semester 2

ENN560 System Design

ENN580 Control Systems

### Year 2, Semester 1

BEN610 Project Management Principles

ENN520 Advanced Signal Processing and Systems

### Year 2, Semester 2

BEN710 Sustainable Practice in Built Environment and  
Engineering

AMN435 Communication, Negotiation and Leadership  
OR

GSN235 Communication, Negotiation and Leadership

### Year 3, Semester 1

BEN910 Integrated Project

ENN540 Engineering Optimisation

## Potential Careers:

Civil Engineer, Electrical and Computer Engineer, Electrical Engineer, Engineering Technologist, Mechanical Engineer, Medical Engineer.

## Bachelor of Engineering (Electrical)/ Bachelor of Mathematics (IF21)

Year offered: 2010

Admissions: Yes

CRICOS code: 020329J

Course duration (full-time): 5 years

Domestic fees (indicative): 2010: CSP \$2,800 (indicative) per semester

International Fees (indicative): 2010: \$11,500 (indicative) per semester

Domestic Entry: February

International Entry: February

QTAC code: 419572

Past rank cut-off: 81

Past OP cut-off: 10

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths B (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 480

Standard credit points per full-time semester: 48

Course coordinator: Dr R.Mahalinga-Iyer (Engineering); Professor Helen MacGillivray (Science & Technology)

Discipline coordinator: Dr Bouchra Senadji (Engineering); Professor Helen MacGillivray (Mathematics Major)

Campus: Gardens Point

### Career Outcomes

Career outcomes for engineering/ mathematics double degree students include working in the power industry, robotics, manufacturing and mining. Career opportunities are also found in the telecommunications industry, transport sector, computer industry and transmission industries.

### Recommended study

Chemistry, Maths C and Physics are recommended.

### Overview

Mathematics and engineering have always had close connections, but recent advancements in mathematics and statistics are increasingly being used to help solve complex engineering problems.

Electrical and computer engineers design, install and maintain electrical, electronic, telecommunications and computing systems on behalf of government and private companies. A stronger training in mathematics and statistics enhances capabilities in modelling, analysis and design.

### Other Course Requirements

Bachelor of Engineering students are required to complete at least 60 days of industrial experience in an engineering environment approved by the course coordinator.

### Professional Recognition

This course meets the requirements for membership of Engineers Australia (EA). EA is a signatory to the Washington Accord, which permits graduates from accredited member courses to work in various countries across the world. The course also meets the coursework

requirements for accredited graduate membership of the Australian Mathematical Society. You may also become a member of the Statistical Society of Australia.

### Financial Support

You should consider applying for an industry-sponsored mathematics bursary or an engineering scholarship to help you financially throughout your studies. For further information visit [www.scholarships.qut.edu.au](http://www.scholarships.qut.edu.au)

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

For further information about this course, please contact the following:

#### Engineering Coordinator

Dr Bouchra Senadji

Phone: 3138 8228

Email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

#### Science & Technology Coordinator

Professor Helen MacGillivray

Phone: +61 7 3138 2337

Email: [h.macgillivray@qut.edu.au](mailto:h.macgillivray@qut.edu.au)

### Course structure - For students commencing in 2010 (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

null

#### Year 1, Semester 1

ENB100 Introducing Professional Learning

ENB120 Electrical Energy and Measurements

MAB101 Statistical Data Analysis 1

MAB120 Algebra and Calculus

#### Year 1, Semester 2

ENB200 Introducing Sustainability

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB130	Mechanical and Thermal Energy
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

Mathematics Elective (Level 3)

## Year 2, Semester 1

ENB110	Engineering Statics and Materials
ENB250	Electrical Circuits
MAB220	Computational Mathematics 1
MAB311	Advanced Calculus

## Electrical Engineering Selectives

ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems

## Year 2, Semester 2

ENB150	Introducing Engineering Design
MAB210	Statistical Modelling 1
MAB413	Differential Equations
	Mathematics Elective (Level 2)

## Course structure - For students commencing in 2010 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

null

## Year 3, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB312	Linear Algebra
MAB314	Statistical Modelling 2

## Year 1, Semester 1

ENB100	Introducing Professional Learning
ENB120	Electrical Energy and Measurements
MAB121	Calculus and Differential Equations
MAB122	Algebra and Analytic Geometry

## Year 3, Semester 2

ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice

## Year 1, Semester 2

ENB200	Introducing Sustainability
ENB130	Mechanical and Thermal Energy
MAB101	Statistical Data Analysis 1
MAB220	Computational Mathematics 1

## Year 4, Semester 1

ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms
	Mathematics Elective (Level 3)

## Year 2, Semester 1

ENB110	Engineering Statics and Materials
ENB250	Electrical Circuits
MAB210	Statistical Modelling 1
MAB311	Advanced Calculus

## Year 4, Semester 2

ENB345	Advanced Design and Professional Practice
MAB414	Applied Statistics 2
	Mathematics Elective (Level 3)
	Mathematics Elective (Level 3)

## Year 2, Semester 2

ENB150	Introducing Engineering Design
MAB413	Differential Equations
	Mathematics Elective (Level 2)
	Mathematics Elective (Level 2)

## Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB241	Software Systems Design
	OR Electrical Engineering Selective
ENB346	Digital Communications

## Year 3, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB312	Linear Algebra
MAB314	Statistical Modelling 2

## Year 5, Semester 2

BEB802	Project 2
ENB344	Industrial Electronics
	Electrical Engineering Selective

## Year 3, Semester 2

ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB245 Introduction To Design and Professional Practice

MAB613 Partial Differential Equations

MAB623 Financial Mathematics

## Year 4, Semester 1

ENB241 Software Systems Design  
OR Electrical Engineering Selective

MAB624 Applied Statistics 3

MAB672 Advanced Mathematical Modelling

ENB301 Instrumentation and Control

NOTES:

ENB340 Power Systems and Machines

- Some deviations from the above course structure may be possible with the permission of the course coordinator. This is more likely to apply in the later years than the earlier years of the course.

ENB342 Signals, Systems and Transforms

## Year 4, Semester 2

ENB344 Industrial Electronics

## Course structure - For students commencing in 2009 (Maths B only)

ENB345 Advanced Design and Professional Practice

MAB414 Applied Statistics 2  
Mathematics Elective (Level 3)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

null

## Year 5, Semester 1

BEB801 Project 1

## Year 1, Semester 1

ENB346 Digital Communications  
Mathematics Elective (Level 3)  
Mathematics Elective (Level 3)

BEB100 Introducing Professional Learning

MAB100 Mathematical Sciences 1A

MAB101 Statistical Data Analysis 1

PCB136 Engineering Physics 1C

## Year 5, Semester 2

BEB701 Work Integrated Learning 1

## Year 1, Semester 2

BEB802 Project 2  
Electrical Engineering Selective  
Mathematics Elective (Level 3)

ENB101 Engineering Mechanics 1

ENB103 Electrical Engineering

MAB111 Mathematical Sciences 1B

MAB112 Mathematical Sciences 1C

## Electrical Engineering Selectives

ENB448 Signal Processing and Filtering  
ENB452 Advanced Power Systems Analysis  
ENB453 Power Equipment and Utilisation  
ENB456 Energy  
ENB457 Controls, Systems and Applications  
ENB458 Modern Control Systems

## Year 2, Semester 1

ENB240 Introduction To Electronics

ENB246 Engineering Problem Solving

MAB220 Computational Mathematics 1

MAB311 Advanced Calculus

## Mathematics Electives (Level 2)

MAB313 Mathematics of Finance  
MAB420 Computational Mathematics 2  
MAB422 Mathematical Modelling  
MAB461 Discrete Mathematics  
MAB480 Introduction to Scientific Computation

## Year 2, Semester 2

ENB243 Linear Circuits and Systems

ENB244 Microprocessors and Digital Systems

MAB210 Statistical Modelling 1

MAB413 Differential Equations

## Mathematics Electives (Level 3)

### Four units required:

MAB521 Applied Mathematics 3  
MAB522 Computational Mathematics 3  
MAB524 Statistical Inference  
MAB533 Statistical Techniques  
MAB536 Time Series Analysis

## Year 3, Semester 1

ENB242 Introduction To Telecommunications

ENB350 Real-time Computer-based Systems

MAB312 Linear Algebra

MAB314 Statistical Modelling 2

## Year 3, Semester 2

BEB200 Introducing Sustainability

ENB245 Introduction To Design and Professional Practice

ENB352 Communication Environments For Embedded

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Systems  
MAB414 Applied Statistics 2

## Year 4, Semester 1

ENB301 Instrumentation and Control  
ENB340 Power Systems and Machines  
ENB342 Signals, Systems and Transforms  
Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
ENB346 Digital Communications  
ENB458 Modern Control Systems  
Mathematics elective (Level 3)

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
BEB801 Project 1  
Electrical Engineering Selective  
Mathematics elective (Level 3)

## Year 5, Semester 2

BEB802 Project 2  
ENB344 Industrial Electronics  
Mathematics elective (Level 3)  
Mathematics elective (Level 3)

## Electrical Engineering Selectives

ENB440 RF and Applied Electromagnetics  
ENB441 Applied Image Processing  
ENB445 RF Communication Technologies  
ENB446 Wireless Communications  
ENB448 Signal Processing and Filtering  
ENB452 Advanced Power Systems Analysis  
ENB453 Power Equipment and Utilisation  
ENB454 Power System Management  
ENB455 Power Electronics  
ENB456 Energy  
ENB457 Controls, Systems and Applications  
INB353 Wireless and Mobile Networks  
INB860 Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2007 & 2008 (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.

null

## Year 1, Semester 1

BEB100 Introducing Professional Learning  
MAB100 Mathematical Sciences 1A  
MAB101 Statistical Data Analysis 1  
PCB136 Engineering Physics 1C

## Year 1, Semester 2

ENB101 Engineering Mechanics 1  
ENB103 Electrical Engineering  
MAB111 Mathematical Sciences 1B  
MAB112 Mathematical Sciences 1C

## Year 2, Semester 1

ENB240 Introduction To Electronics  
ENB246 Engineering Problem Solving  
MAB220 Computational Mathematics 1  
MAB311 Advanced Calculus

## Year 2, Semester 2

ENB243 Linear Circuits and Systems  
ENB244 Microprocessors and Digital Systems  
MAB210 Statistical Modelling 1  
MAB413 Differential Equations

## Year 3, Semester 1

ENB242 Introduction To Telecommunications  
ENB350 Real-time Computer-based Systems  
MAB312 Linear Algebra  
MAB314 Statistical Modelling 2

## Year 3, Semester 2

ENB245 Introduction To Design and Professional Practice  
ENB352 Communication Environments For Embedded Systems  
MAB414 Applied Statistics 2  
Mathematics elective (Level 2)

## Year 4, Semester 1

ENB301 Instrumentation and Control  
ENB340 Power Systems and Machines  
ENB342 Signals, Systems and Transforms  
Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
ENB346 Digital Communications  
ENB458 Modern Control Systems  
Mathematics elective (Level 3)

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
BEB801 Project 1

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Electrical Engineering Selective  
Mathematics elective (Level 3)

ENB243 Linear Circuits and Systems  
ENB244 Microprocessors and Digital Systems  
MAB210 Statistical Modelling 1  
MAB413 Differential Equations

## Year 5, Semester 2

BEB802 Project 2  
ENB344 Industrial Electronics  
Mathematics elective (Level 3)  
Mathematics elective (Level 3)

## Year 3, Semester 1

ENB242 Introduction To Telecommunications  
ENB350 Real-time Computer-based Systems  
MAB312 Linear Algebra  
MAB314 Statistical Modelling 2

## Electrical Engineering Selectives

ENB440 RF and Applied Electromagnetics  
ENB441 Applied Image Processing  
ENB445 RF Communication Technologies  
ENB446 Wireless Communications  
ENB448 Signal Processing and Filtering  
ENB452 Advanced Power Systems Analysis  
ENB453 Power Equipment and Utilisation  
ENB454 Power System Management  
ENB455 Power Electronics  
ENB456 Energy  
ENB457 Controls, Systems and Applications  
INB353 Wireless and Mobile Networks  
INB860 Computational Intelligence for Control and Embedded Systems

## Year 3, Semester 2

ENB245 Introduction To Design and Professional Practice  
ENB352 Communication Environments For Embedded Systems  
MAB420 Computational Mathematics 2  
MAB480 Introduction to Scientific Computation  
OR  
Computing Elective

## Course structure - For students commencing in 2006 (Maths B only)

For students with four semesters of Senior Mathematics B (or equivalent) only, with an exit assessment of at least Sound Achievement.  
null

## Year 4, Semester 1

ENB301 Instrumentation and Control  
ENB340 Power Systems and Machines  
ENB342 Signals, Systems and Transforms  
Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
ENB346 Digital Communications  
ENB458 Modern Control Systems  
Mathematics elective (Level 3)

## Year 1, Semester 1

BEB100 Introducing Professional Learning  
MAB100 Mathematical Sciences 1A  
MAB101 Statistical Data Analysis 1  
PCB136 Engineering Physics 1C

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
BEB801 Project 1  
Electrical Engineering Selective  
Mathematics elective (Level 3)

## Year 1, Semester 2

ENB101 Engineering Mechanics 1  
ENB103 Electrical Engineering  
MAB111 Mathematical Sciences 1B  
MAB112 Mathematical Sciences 1C

## Year 5, Semester 2

BEB802 Project 2  
ENB344 Industrial Electronics  
Mathematics elective (Level 3)  
Mathematics elective (Level 3)

## Year 2, Semester 1

ENB240 Introduction To Electronics  
ENB246 Engineering Problem Solving  
MAB220 Computational Mathematics 1  
MAB311 Advanced Calculus

## Electrical Engineering Selectives

ENB440 RF and Applied Electromagnetics  
ENB441 Applied Image Processing  
ENB445 RF Communication Technologies  
ENB446 Wireless Communications  
ENB448 Signal Processing and Filtering

## Year 2, Semester 2

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2009 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

null

### Year 1, Semester 1

BEB100	Introducing Professional Learning
MAB111	Mathematical Sciences 1B
MAB112	Mathematical Sciences 1C
PCB136	Engineering Physics 1C

### Year 1, Semester 2

ENB101	Engineering Mechanics 1
ENB103	Electrical Engineering
MAB101	Statistical Data Analysis 1
MAB220	Computational Mathematics 1

### Year 2, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB210	Statistical Modelling 1
MAB311	Advanced Calculus

### Year 2, Semester 2

BEB200	Introducing Sustainability
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
MAB413	Differential Equations

### Year 3, Semester 1

ENB242	Introduction To Telecommunications
ENB350	Real-time Computer-based Systems
MAB312	Linear Algebra
MAB314	Statistical Modelling 2

### Year 3, Semester 2

ENB245	Introduction To Design and Professional Practice
ENB352	Communication Environments For Embedded

Systems

MAB414	Applied Statistics 2
	Mathematics elective (Level 2)

### Year 4, Semester 1

ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms
	Mathematics elective (Level 2)

### Year 4, Semester 2

ENB345	Advanced Design and Professional Practice
ENB346	Digital Communications
ENB458	Modern Control Systems
	Mathematics elective (Level 3)

### Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
	Electrical Engineering Selective
	Mathematics elective (Level 3)

### Year 5, Semester 2

BEB802	Project 2
ENB344	Industrial Electronics
	Mathematics elective (Level 3)
	Mathematics elective (Level 3)

### Electrical Engineering Selectives

ENB440	RF and Applied Electromagnetics
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

## Course structure - For students commencing in 2007 & 2008 (Maths B and Maths C)

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.

null

**Year 1, Semester 1**

BEB100 Introducing Professional Learning  
 MAB111 Mathematical Sciences 1B  
 MAB112 Mathematical Sciences 1C  
 PCB136 Engineering Physics 1C

**Year 1, Semester 2**

ENB101 Engineering Mechanics 1  
 ENB103 Electrical Engineering  
 MAB101 Statistical Data Analysis 1  
 MAB210 Statistical Modelling 1

**Year 2, Semester 1**

ENB240 Introduction To Electronics  
 ENB246 Engineering Problem Solving  
 MAB220 Computational Mathematics 1  
 MAB311 Advanced Calculus

**Year 2, Semester 2**

ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems  
 MAB413 Differential Equations  
 Mathematics elective (Level 2 or 3)

**Year 3, Semester 1**

ENB242 Introduction To Telecommunications  
 ENB350 Real-time Computer-based Systems  
 MAB312 Linear Algebra  
 MAB314 Statistical Modelling 2

**Year 3, Semester 2**

ENB245 Introduction To Design and Professional Practice  
 ENB352 Communication Environments For Embedded Systems  
 MAB414 Applied Statistics 2  
 Mathematics elective (Level 2)

**Year 4, Semester 1**

ENB301 Instrumentation and Control  
 ENB340 Power Systems and Machines  
 ENB342 Signals, Systems and Transforms  
 Mathematics elective (Level 2)

**Year 4, Semester 2**

ENB345 Advanced Design and Professional Practice  
 ENB346 Digital Communications  
 ENB458 Modern Control Systems  
 Mathematics elective (Level 3)

**Year 5, Semester 1**

BEB701 Work Integrated Learning 1

BEB801 Project 1  
 Electrical Engineering Selective  
 Mathematics elective (Level 3)

**Year 5, Semester 2**

BEB802 Project 2  
 ENB344 Industrial Electronics  
 Mathematics elective (Level 3)  
 Mathematics elective (Level 3)

**Electrical Engineering Selectives**

ENB440 RF and Applied Electromagnetics  
 ENB441 Applied Image Processing  
 ENB445 RF Communication Technologies  
 ENB446 Wireless Communications  
 ENB448 Signal Processing and Filtering  
 ENB452 Advanced Power Systems Analysis  
 ENB453 Power Equipment and Utilisation  
 ENB454 Power System Management  
 ENB455 Power Electronics  
 ENB456 Energy  
 ENB457 Controls, Systems and Applications  
 INB353 Wireless and Mobile Networks  
 INB860 Computational Intelligence for Control and Embedded Systems

**Course structure - For students commencing in 2006 (Maths B and Maths C)**

For students with four semesters of both Senior Mathematics B and Senior Mathematics C (or equivalent) with an exit assessment of at least Sound Achievement in both subjects.  
 null

**Year 1, Semester 1**

BEB100 Introducing Professional Learning  
 MAB111 Mathematical Sciences 1B  
 MAB112 Mathematical Sciences 1C  
 PCB136 Engineering Physics 1C

**Year 1, Semester 2**

ENB101 Engineering Mechanics 1  
 ENB103 Electrical Engineering  
 MAB101 Statistical Data Analysis 1  
 MAB220 Computational Mathematics 1

**Year 2, Semester 1**

ENB240 Introduction To Electronics  
 ENB246 Engineering Problem Solving  
 MAB210 Statistical Modelling 1  
 MAB311 Advanced Calculus



## Year 2, Semester 2

ENB243 Linear Circuits and Systems  
 ENB244 Microprocessors and Digital Systems  
 MAB413 Differential Equations  
 Mathematics elective (Level 2 or 3)

ENB448 Signal Processing and Filtering  
 ENB452 Advanced Power Systems Analysis  
 ENB453 Power Equipment and Utilisation  
 ENB454 Power System Management  
 ENB455 Power Electronics  
 ENB456 Energy  
 ENB457 Controls, Systems and Applications  
 INB353 Wireless and Mobile Networks  
 INB860 Computational Intelligence for Control and Embedded Systems

## Year 3, Semester 1

ENB242 Introduction To Telecommunications  
 ENB350 Real-time Computer-based Systems  
 MAB312 Linear Algebra  
 MAB314 Statistical Modelling 2

### Potential Careers:

Electrical and Computer Engineer, Electrical Engineer, Mathematician, Statistician.

## Year 3, Semester 2

ENB245 Introduction To Design and Professional Practice  
 ENB352 Communication Environments For Embedded Systems  
 MAB420 Computational Mathematics 2  
 MAB480 Introduction to Scientific Computation  
 OR  
 Computing Elective

## Year 4, Semester 1

ENB301 Instrumentation and Control  
 ENB340 Power Systems and Machines  
 ENB342 Signals, Systems and Transforms  
 Mathematics elective (Level 2)

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
 ENB346 Digital Communications  
 ENB458 Modern Control Systems  
 Mathematics elective (Level 3)

## Year 5, Semester 1

BEB701 Work Integrated Learning 1  
 BEB801 Project 1  
 Electrical Engineering Selective  
 Mathematics elective (Level 3)

## Year 5, Semester 2

BEB802 Project 2  
 ENB344 Industrial Electronics  
 Mathematics elective (Level 3)  
 Mathematics elective (Level 3)

## Electrical Engineering Selectives

ENB440 RF and Applied Electromagnetics  
 ENB441 Applied Image Processing  
 ENB445 RF Communication Technologies  
 ENB446 Wireless Communications



## Bachelor of Engineering (Electrical)/Bachelor of Business (IF28)

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 027278C

**Course duration (full-time):** 5 years (10 semesters)

**Domestic fees (indicative):** 2010: CSP rate 2010 available July 2009

**International Fees (indicative):** 2010: \$11,250 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419532

**Past rank cut-off:** 80

**Past OP cut-off:** 10

**OP Guarantee:** Yes

**Assumed knowledge:** English (4, SA) and Maths B (4, SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 480

**Standard credit points per full-time semester:** 48 (average)

**Course coordinator:** Dr R.Mahalinga-Iyer (Engineering); Dr Erica French (Business)

**Discipline coordinator:** Dr Felipe Gonzalez (Engineering); Ms Ros Kent (Accountancy); Ms Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr Anup Basu (Finance); Mr Greg Southey (Human Resource Management); Mr Michael Cox (International Business); Dr Kavooos Mohannak (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

**Campus:** Gardens Point

null

This course has been discontinued. Currently enrolled students should check with the relevant Faculty for course progression and enrolment advice.

## Doctor of Philosophy (Built Environment, Engineering) (IF49)

Year offered: 2010

Admissions: Yes

CRICOS code: 006367J

Course duration (full-time): 2 years (max. 4 years)

Course duration (part-time): 4 years (max. 8 years)

**Domestic fees (indicative):** Aust citizens or PRs will be awarded an RTS/RTA place or a QUT sponsorship for tuition fees. If you exceed the max time, you will be charged - 2010: \$11,750 per semester (indicative)

**International Fees (indicative):** 2010: \$11,750 (indicative) per semester

**Domestic Entry:** At any time

**International Entry:** At any time

**Campus:** Gardens Point

### Entry Requirements

First class or second class division A honours degree, an appropriate Masters Degree (research or coursework), or a professional doctorate, from a recognised institution. Masters degree by coursework and professional doctorates must contain a significant research component, of no less than 33 per cent of the total degree, and must have a GPA of at least 5.5 on a 7 point scale.

### Overview

This program provides in-depth research training in particular areas of built environment and engineering while broadening knowledge in a chosen discipline area. In the multimodal program candidates conduct research away from QUT, often in the workplace, either in Australia or overseas. Videoconferencing, email and other technologies make it possible for candidates to participate in activities such as seminar delivery and progress reporting.

Candidates would normally undertake their Confirmation of Candidature and Final Seminar in person. A QUT staff member of the supervisory team would normally visit the candidate at their research site at least once during their candidature. External candidates must normally spend a minimum of three months at QUT and be present in person for their confirmation of Candidature and Final Semester. Doctoral studies normally include:

- \* assessed coursework
- \* participation in university scholarly activities such as research seminars, teaching and publication
- \* regular meetings with supervisors
- \* a program of supervised research and investigation
- \* preparation of a thesis. Candidates can enrol in a doctoral program through the Faculty Research Centre.

### Fees

Australian citizens and permanent residents will be awarded a Research Training Scheme (RTS) place. Domestic students are not required to apply for an RTS entitlement, as it will be automatically allocated. The RTS covers tuition fees but not Guild fees or other study related costs. PhD Students are entitled to four years full-time equivalent study under these schemes. Students who exceed this entitlement may apply to QUT for extension, however the University

may charge fees for the period of the program, which exceeds the student's entitlement. The University determines the fee level.

### Research Areas

Areas of research interest

You can enrol in a research program in the following thematic areas of research:

- \* Infrastructure (Energy, Water, Housing and Construction)
- \* Smart Systems (Speech and signal processing, robotics and automation, and infrastructure and asset management)
- \* Medical Engineering (Orthopaedics & trauma, Biomedical modelling and simulation) and
- \* Design (industrial design, interior design, urban design and architecture).

### DESIGN

The DESIGN theme includes research in Architecture, Industrial Design, Interior Design, Landscape Architecture and Urban Design. It focuses on Subtropical Design, Digital Design, Human-centred Design Research and Useability, Built Environment Design Areas, Cultural Landscape, Design for Aging, Design and Research Methodologies and Design Education. The theme is cross/inter - disciplinary related with relevant fields in the Faculty (eg. mechanical/manufacturing/medical engineering; transport engineering; structures and designs; electronic systems and informatics environment) and across the University community (eg. Institute for Health and Biomedical Innovation (IHBI), Institute for Creative Innovation (iCi), Information Security Institute (ISI), Institute for Sustainable Systems and Resources and relevant Collaborative Research Centres (CRC)).

### MEDICAL ENGINEERING

This program aims to engender sustainable improvements in quality of life for everybody through the innovative application of new and emerging technologies which will not only help reduce the economic burden of healthcare provision, but also generate wealth for the nation through the stimulation of local industry. Under two broad headings, the program encompasses the following research areas:

\* Orthopaedic and Trauma

The Orthopaedic and Trauma group has seven principal areas of focus: bone defects; fracture healing; pathogenesis and repair of osteoarthritis; biomaterials; new approaches to minimally invasive surgery; paediatric and adult spine research; and clinical outcomes.

\* Biomechanics, Modelling and Simulation

Apart from orthopaedic research, the Medical Engineering program also encompasses many other areas studying the application of mechanical and electrical engineering to clinically related healthcare problems. These include: amputee gait analysis; paediatric gait analysis; performance of paralympic athletes; osseointegrated implants; spinal and pelvic mechanics; paediatric spine deformity; artificial organs, specifically ventricular assist devices (artificial heart) and artificial lungs; tissue mechanics; bioelectrical signal analysis; tribology of artificial joints; and the interface between devices and the human body.

## MEDICAL ENGINEERING - Biomechanical Modelling and Simulation

SMART SYSTEMS - Infrastructure and Asset Management  
Infrastructure research, in collaboration with industry, government and professions, aims to strengthen the nation's building and infrastructure systems. Research concentrates on investigating the performance of existing and new building and infrastructure systems under realistic structural and environmental loadings including those due to natural, accidental and man-made hazards. It uses smart materials, systems and technologies, and advanced computer analysis and test methods to assess and improve the performance of existing and new building and infrastructure systems.

Asset Management research focuses on innovative industry directed research and development, education and commercialisation in an integrated approach to lifecycle physical asset management to meet present and future needs to ensure international competitiveness and sustainability of Australian industry. The overall research program will be focused on five main industry sectors: Defence, Water and Waste, Power Generation and Distribution, Extraction and Process and Transport Infrastructure.

This research is closely aligned to the CRC for Construction Innovation and the CRC for Integrated Engineering Asset Management.

## SMART SYSTEMS - Robotics and Automation

The Robotics and Automation program is focussed on world-class research on robotics and navigation systems for unmanned aerial vehicles, and involves collaboration with CSIRO and Boeing. However similar automation strategies and technologies are used in a variety of control applications such as energy network control, and infomechatronic systems, and satellites.

## SMART SYSTEMS - Speech and Signal Processing

This program conducts internationally competitive research in order to solve practical problems, which enable Speech, and Signal Processing to be applied in products and processes. Research focuses on, state-of-the-art speech audio and video technologies including speech/speaker recognition and personal identification technologies for forensic and security applications; speech coding for storage and communication; speech synthesis for voice response systems; audio compression for broadcasting, television and Internet applications, video compression and image recognition and restoration.

## INFRASTRUCTURE - Energy

The provision of sustainable energy supplies is of critical importance to the future of Australia, and this research involves experimental and theoretical research on solar cells, wind energy and solar thermal energy generation as well as fundamental research on energy supply networks, including distributed generation technology and energy policy. This research is conducted in collaboration with energy utilities and the Queensland Sustainable Energy

Industry Development Group.

## INFRASTRUCTURE - Water

The supply of fresh water and the quality of water supply are key issues facing Australia over the next 20 years, and this research looks at water re-use technology and policy. The research is practically focussed with significant collaboration with local government in South-East Queensland.

## INFRASTRUCTURE - Transport

The aim of this program is to focus research effort in the freight and logistics area with an emphasis on multi-modal transportation systems. The main research areas include freight vehicle impacts, freight and logistics e-business systems, freight corridor evaluation analysis, ITS applications in freight and logistics, emissions modelling, transit evaluation methodologies, rail track modelling and analysis, and intermodal terminal planning and operations.

## INFRASTRUCTURE - Housing and Construction

This research makes contributions to improved practice in the specific areas of housing, urban planning, international project management, construction and property performance, construction information and procurement technologies, and property market choice, investments, constraints opportunities, internationalisation, taxation, lifecycles, risk and culture.

The Faculty is also involved in the following Cooperative Research Centres (CRC) and externally-funded collaborative research ventures:

## CRC FOR CONSTRUCTION INNOVATION

The Centre aims to create and commercially exploit tools, technologies and management systems to deliver innovative constructed assets of financial, environmental and social benefit to the community. The centre combines basic research with strategic research and development in five related programs: virtual environments for lifecycle design and construction; construction project delivery strategies; environmental sustainability; integrated design and construction support systems; and management, adaptability and the future of built assets.

## CRC FOR INTEGRATED ENGINEERING ASSET MANAGEMENT

The CRC for Integrated Engineering Asset Management (CIEAM) delivers capabilities and technologies for integrated and sustainable asset management to a wide range of Australian industries in both the private and the public sectors. CIEAM consists of leading edge researchers and practitioners focused on industry directed R&D and education in the management of Australia's major engineering assets in the Defence, Utilities (power, water and gas), Process and extraction, and Transportation industries. CIEAM involves five research program areas. These are: Models and decision systems, Advanced sensors, Intelligent diagnostics and life prediction, Systems integration and IT, and Strategic human dimensions.

## CRC FOR RAILWAY ENGINEERING AND TECHNOLOGIES

The Centre aims through research to develop an internationally competitive, efficient and sustainable rail industry and to facilitate the development of an Australian export industry in railway technologies. Benefits will flow in terms of improved rail efficiency and infrastructure capacity, energy savings, reduced maintenance cost and better asset utilisation. The main research areas include: 'Smart train' intelligent systems; innovative/automated maintenance and upgrading technologies; optimal traffic control and scheduling; IT systems and standards for rail management; new materials, systems and components for railways; and, industry skills development (education and training).

## CRC FOR ADVANCED AUTOMOTIVE TECHNOLOGY

The CRC for Advanced Automotive Technology brings the automotive industry together with researchers in design, engineering and manufacturing to enhance the industry's international competitiveness. The aim of the research is to reduce the concept-to-product cycle times, improved manufacturing flexibility and efficiency and the development of new material systems to meet the challenges of weight reduction, increased safety and greater functionality. The CRC will also improve vehicle safety through improvements in the crash worthiness of vehicles and new intelligent products/systems that provide increased comfort, performance and entertainment.

## AUSTRALIAN HOUSING AND URBAN INSTITUTE (AHURI):

The Institute is a consortium of CSIRO Division of Building, Construction and Engineering ; Queensland University of Technology; University of Queensland; Monash University, and Royal Melbourne Institute of Technology (RMIT). Its broad objective is to conduct research into issues in housing and urban fields in Australia and the Asia-Pacific region.

## CENTRE FOR SUBTROPICAL DESIGN

The Centre for Subtropical Design is one of the Faculty's first funded units in one of our major targeted areas: sustainable development. This Centre will promote high quality planning, design and development that responds to the City of Brisbane and South-East Queensland Region's cultural, landscape, and climatic characteristics in ways that are sustainable and enhance the enjoyment of the region's subtropical lifestyle.

## QUEENSLAND SUSTAINABLE ENERGY INDUSTRY DEVELOPMENT GROUP

This group, formed in 2004 by QUT, the University of Queensland, Central Queensland University, Stanwell Corporation, CS Energy and the Queensland Conservation Council, is continuing the work of the Australian CRC for Renewable Energy in areas of energy policy, training for the sustainable energy industry (supply and use), and renewable energy technology.

## AUSTRALIAN CENTRE FOR SUGAR RESEARCH INNOVATION

This Centre is the research division of the former Sugar Research Institute which transferred to QUT in July 2005. This Centre conducts research into the post-harvest processing and economics of sugar cane, and has a

particular expertise in milling technology (mechanical engineering and computational fluid dynamics modelling), separation science, and total biomass utilisation, in particular the transformation of sugar cane waste into biofuels (ethanol) and biopolymers to provide renewable fuels and industrial chemicals.

## International Student Entry

QUT advises that International Students may only enrol in full-time studies.

## Further Information

The Centre for Built Environment and Engineering Research  
Phone +61 7 3138 1424, Fax +61 7 3138 8381, e-mail:  
bee.research@qut.edu.au

## Bachelor of Engineering (Electrical)/Bachelor of Information Technology (IF59)

Year offered: 2010

Admissions: No

CRICOS code: 006384G

Course duration (full-time): 5 years

Domestic fees (indicative): 2010: CSP \$3,200 (indicative)  
per semester

International Fees (indicative): 2010: \$11,500 (indicative)  
per semester

QTAC code: 419512

Past rank cut-off: 76

Past OP cut-off: 12

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths B (4, SA)

Preparatory studies: For information on acquiring  
assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 480

Standard credit points per full-time semester: 48

Course coordinator: Dr R.Mahalinga-Iyer (Engineering),  
Mr Richard Thomas (Science and Technology)

Discipline coordinator: Dr Felipe Gonzalez (Engineering)

Campus: Gardens Point

### DISCONTINUATION

As of Semester 1 2009, this course has been discontinued  
and replaced by IX54 Bachelor of Engineering  
(Electrical)/Bachelor of Information Technology.

### Further Information

For Further information about this course, please contact  
the following:

#### Engineering Coordinator

Phone +61 7 3138 2678

Fax +61 7 3138 1515

Email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

#### Science and Technology Coordinator

Phone: 3138 9353

Email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

### Full-time Course structure - Students who commenced in 2007 and 2008

#### Full-time Course Structure - Year 1, Semester 1

BEB100	Introducing Professional Learning
ITB001	Problem Solving and Programming
PCB136	Engineering Physics 1C
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B

#### Year 1, Semester 2

BEB200	Introducing Sustainability
ENB103	Electrical Engineering

ITB003	Object Oriented Programming
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B

#### Year 2, Semester 1

ENB240	Introduction To Electronics
INB251	Networks
	OR (prior to 2008)
ITB006	Networks
INB271	The Web
	OR (prior to 2008)
ITB007	Web Development
MAB233	Engineering Mathematics 3

#### Year 2, Semester 2

ENB243	Linear Circuits and Systems
ENB245	Introduction To Design and Professional Practice
INB210	Databases
	OR (prior to 2008)
ITB004	Database Systems
INB272	Interaction Design
	OR (prior to 2008)
ITB008	Modelling Analysis and Design

#### Year 3, Semester 1

ENB242	Introduction To Telecommunications
ENB340	Power Systems and Machines
	IT Elective Unit
	IT Elective Unit

#### Year 3, Semester 2

ENB241	Software Systems Design
ENB244	Microprocessors and Digital Systems
ENB345	Advanced Design and Professional Practice
	IT Elective Unit

#### Year 4, Semester 1

ENB342	Signals, Systems and Transforms
ENB343	Fields, Transmission and Propagation
ENB350	Real-time Computer-based Systems
	IT Elective Unit

#### Year 4, Semester 2

ENB344	Industrial Electronics
ENB346	Digital Communications
INB301	The Business of IT
	OR (prior to 2008)
ITB009	Core Project Management
	IT Elective Unit



## Year 5, Semester 1

ENB301	Instrumentation and Control
BEB801	Project 1
	OR
INB309-1	Major Project
	IT Elective Unit
	Electrical Engineering Selective

## Year 5, Semester 2

BEB701	Work Integrated Learning 1
BEB802	Project 2
	OR
INB309-2	Major Project
	IT Elective Unit
	Electrical Engineering Selective

## Electrical Engineering Elective Units

ENB231	Materials and Manufacturing 1
ENB334	Design For Manufacturing
ENB350	Real-time Computer-based Systems
ENB352	Communication Environments For Embedded Systems
ENB436	Mechatronics System Design
ENB440	RF and Applied Electromagnetics
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

IT Elective units -please see IT Elective Unit list

## Full-time Course structure - Students who commenced in 2006

### Full-time Course Structure - Year 1, Semester 1

ITB001	Problem Solving and Programming
ITB006	Networks
PCB136	Engineering Physics 1C
MAB131	Engineering Mathematics 1A
	OR

MAB180 Engineering Mathematics 1B

### Year 1, Semester 2

BEB100	Introducing Professional Learning
ENB103	Electrical Engineering
ITB003	Object Oriented Programming
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B

### Year 2, Semester 1

ENB240	Introduction To Electronics
ITB004	Database Systems
ITB008	Modelling Analysis and Design
MAB233	Engineering Mathematics 3

### Year 2, Semester 2

BEB200	Introducing Sustainability
ENB243	Linear Circuits and Systems
ENB245	Introduction To Design and Professional Practice
ITB007	Web Development

### Year 3, Semester 1

ENB242	Introduction To Telecommunications
ENB340	Power Systems and Machines
	IT Elective Unit
	IT Elective Unit

### Year 3, Semester 2

ENB241	Software Systems Design
ENB244	Microprocessors and Digital Systems
ENB345	Advanced Design and Professional Practice
	IT Elective Unit

### Year 4, Semester 1

ENB342	Signals, Systems and Transforms
ENB343	Fields, Transmission and Propagation
ENB350	Real-time Computer-based Systems
	IT Elective Unit

### Year 4, Semester 2

ENB344	Industrial Electronics
ENB346	Digital Communications
INB301	The Business of IT
	OR (prior to 2008)
ITB009	Core Project Management
	IT Elective Unit

### Year 5, Semester 1

ENB301	Instrumentation and Control
BEB801	Project 1



OR

INB309-1 Major Project  
IT Elective Unit  
Electrical Engineering Selective

**Year 5, Semester 2**

BEB701 Work Integrated Learning 1

BEB802 Project 2

OR

INB309-2 Major Project  
IT Elective Unit  
Electrical Engineering Selective

**Electrical Engineering Elective Units**

ENB231 Materials and Manufacturing 1

ENB334 Design For Manufacturing

ENB350 Real-time Computer-based Systems

ENB352 Communication Environments For Embedded Systems

ENB436 Mechatronics System Design

ENB440 RF and Applied Electromagnetics

ENB441 Applied Image Processing

ENB445 RF Communication Technologies

ENB446 Wireless Communications

ENB448 Signal Processing and Filtering

ENB452 Advanced Power Systems Analysis

ENB453 Power Equipment and Utilisation

ENB454 Power System Management

ENB455 Power Electronics

ENB456 Energy

ENB457 Controls, Systems and Applications

ENB458 Modern Control Systems

INB353 Wireless and Mobile Networks

INB860 Computational Intelligence for Control and Embedded Systems

IT Elective units -please see IT Elective Unit list

## Bachelor of Engineering (Software Engineering) (IX25)

Year offered: 2010

Admissions: No

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,200 (indicative) per semester

International Fees (indicative): 2010: \$11,500 (indicative) per semester

Domestic Entry: February

International Entry: February

QTAC code: 419502

Past rank cut-off: 76

Past OP cut-off: 12

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths B (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr R.Mahalinga-Iyer

Discipline coordinator: Dr Jasmine Banks

Campus: Gardens Point

### DISCONTINUATION

As of Semester 1 2009, IX25 has been discontinued. Software Engineering is now available in the EN40 Bachelor of Engineering course.

### Special Note

Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### Further Information

For further information about this course, please contact:

Phone +61 7 3138 2678

Fax +61 7 3138 1515

Email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - Students who commenced in 2008

#### Year 1 - Semester 1

BEB100 Introducing Professional Learning

INB104 Building IT Systems

OR (prior to 2008)

ITB001 Problem Solving and Programming

MAB180 Engineering Mathematics 1B

OR

MAB131 Engineering Mathematics 1A

PCB136 Engineering Physics 1C

#### Year 1 - Semester 2

BEB200 Introducing Sustainability

ENB103 Electrical Engineering

INB270 Programming

OR (prior to 2008)

ITB003 Object Oriented Programming

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

#### Year 2 - Semester 1

ENB240 Introduction To Electronics

ENB242 Introduction To Telecommunications

INB251 Networks

MAB233 Engineering Mathematics 3

#### Year 2 - Semester 2

ENB243 Linear Circuits and Systems

ENB244 Microprocessors and Digital Systems

INB210 Databases

INB271 The Web

OR

INB272 Interaction Design

#### Year 3 - Semester 1

ENB350 Real-time Computer-based Systems

ENB354 Introduction To Systems Design

INB370 Software Development

INB371 Data Structures and Algorithms

#### Year 3 - Semester 2

ENB352 Communication Environments For Embedded Systems

ENB355 Advanced Systems Design

INB301 The Business of IT

INB372 Agile Software Development

#### Year 4 - Semester 1

INB255 Security

INB350 Internet Protocols and Services

INB309-1 Major Project

OR

BEB801 Project 1

Elective

#### Year 4 - Semester 2

BEB701 Work Integrated Learning 1

INB309-2 Major Project

OR

BEB802 Project 2

Elective

Elective

#### Electives

Students are required to undertake 3 electives as follows: 2 from Electrical Engineering and 1 from Information Technology.

Electrical Engineering Electives (2 to be selected):

Any 3rd or 4th year electrical ENB unit approved by the course coordinator.

Information Technology Electives (1 to be selected):

INB373 Web Application Development

INB365 Systems Programming

INB381 Modelling and Animation Techniques

INB382 Real Time Rendering Techniques

Or any 3rd or 4th year IT unit approved by the course coordinator.

ITB006 Networks

ITB008 Modelling Analysis and Design

## Year 3 - Semester 1

ENB350 Real-time Computer-based Systems

ENB354 Introduction To Systems Design

INB370 Software Development

OR (prior to 2008)

ITB749 Scientific Programming

INB371 Data Structures and Algorithms

OR (prior to 2008)

ITB702 Algorithms and Data Structures

## Year 3 - Semester 2

ENB352 Communication Environments For Embedded Systems

ENB355 Advanced Systems Design

INB301 The Business of IT

OR (prior to 2008)

ITB009 Core Project Management

INB372 Agile Software Development

OR (prior to 2008)

ITB712 Software Engineering Principles

## Year 4 - Semester 1

INB255 Security

OR (prior to 2008)

ITB730 Information Security Fundamentals

INB350 Internet Protocols and Services

OR (prior to 2008)

ITB720 Internet Protocols and Services

INB309-1 Major Project

OR

BEB801 Project 1

Elective

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1

INB309-2 Major Project

OR

BEB802 Project 2

Elective

Elective

## Electives

Students are required to undertake 3 electives as follows: 2 from Electrical Engineering and 1 from Information Technology.

Electrical Engineering Electives (2 to be selected):

Any 3rd or 4th year electrical ENB unit approved by the course coordinator.

## Full-time Course structure - Students who commenced in 2007

### Year 1 - Semester 1

BEB100 Introducing Professional Learning

INB104 Building IT Systems

OR (prior to 2008)

ITB001 Problem Solving and Programming

MAB180 Engineering Mathematics 1B

OR

MAB131 Engineering Mathematics 1A

PCB136 Engineering Physics 1C

### Year 1 - Semester 2

BEB200 Introducing Sustainability

ENB103 Electrical Engineering

INB270 Programming

OR (prior to 2008)

ITB003 Object Oriented Programming

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

### Year 2 - Semester 1

ENB240 Introduction To Electronics

ENB242 Introduction To Telecommunications

INB270 Programming

OR (prior to 2008)

ITB004 Database Systems

MAB233 Engineering Mathematics 3

### Year 2 - Semester 2

ENB243 Linear Circuits and Systems

ENB244 Microprocessors and Digital Systems

INB251 Networks

OR (prior to 2008)

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

	Information Technology Electives (1 to be selected):
INB373	Web Application Development
INB365	Systems Programming
INB381	Modelling and Animation Techniques
INB382	Real Time Rendering Techniques
	Or any 3rd or 4th year IT unit approved by the course coordinator.

ENB350	Real-time Computer-based Systems
ENB354	Introduction To Systems Design
INB370	Software Development
	OR (prior to 2008)
ITB749	Scientific Programming
INB372	Agile Software Development
	OR (prior to 2008)
ITB712	Software Engineering Principles

## Full-time Course structure - Students who commenced in 2006

### Year 1 - Semester 1

INB104	Building IT Systems
	OR (prior to 2008)
ITB001	Problem Solving and Programming
INB251	Networks
	OR (prior to 2008)
ITB006	Networks
MAB180	Engineering Mathematics 1B
	OR
MAB131	Engineering Mathematics 1A
PCB136	Engineering Physics 1C

### Year 1 - Semester 2

BEB100	Introducing Professional Learning
ENB103	Electrical Engineering
INB270	Programming
	OR (prior to 2008)
ITB003	Object Oriented Programming
MAB132	Engineering Mathematics 2A
	OR
MAB182	Engineering Mathematics 2B

### Year 2 - Semester 1

ENB240	Introduction To Electronics
ENB242	Introduction To Telecommunications
INB270	Programming
	OR (prior to 2008)
ITB004	Database Systems
MAB233	Engineering Mathematics 3

### Year 2 - Semester 2

BEB200	Introducing Sustainability
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
INB271	The Web
	OR (prior to 2008)
ITB007	Web Development

### Year 3 - Semester 1

### Year 3 - Semester 2

ENB352	Communication Environments For Embedded Systems
ENB355	Advanced Systems Design
INB301	The Business of IT
	OR (prior to 2008)
ITB009	Core Project Management
	Elective

### Year 4 - Semester 1

INB255	Security
	OR (prior to 2008)
ITB730	Information Security Fundamentals
INB350	Internet Protocols and Services
	OR (prior to 2008)
ITB720	Internet Protocols and Services
INB309-1	Major Project
	OR
BEB801	Project 1
	Elective

### Year 4 - Semester 2

BEB701	Work Integrated Learning 1
INB309-2	Major Project
	OR
BEB802	Project 2
	Elective
	Elective

### Electives

Students are required to undertake 4 electives as follows: 2 from Electrical Engineering and 2 from Information Technology.

Electrical Engineering Electives (2 to be selected):

Any 3rd or 4th year electrical ENB unit approved by the course coordinator.

Information Technology Electives (2 to be selected):

INB373	Web Application Development
INB365	Systems Programming
INB381	Modelling and Animation Techniques

INB382 Real Time Rendering Techniques  
Or any 3rd or 4th year IT unit approved by the  
course coordinator.

## Bachelor of Business / Bachelor of Engineering (IX28)

Year offered: 2010

Admissions: Yes

CRICOS code: 061649J

Course duration (full-time): 5 years (10 semesters)

Domestic fees (indicative): 2010: CSP \$3,700 (indicative) per semester

International Fees (indicative): 2010: \$11,250 (indicative) per semester

Domestic Entry: February

International Entry: February

QTAC code: 419532

Past rank cut-off: 79

Past OP cut-off: 11

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and for accountancy, economics, finance and marketing majors: Maths B (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Course coordinator: Dr R.Mahalinga-Iyer (Engineering); Dr Erica French (Business)

Discipline coordinator: Dr Jasmine Banks (Engineering); Ms Ros Kent (Accountancy); Ms Gayle Kerr (Advertising); Dr Tommy Tang (Economics); Dr Anup Basu (Finance); Dr Robert Thompson (Human Resource Management); Mr Michael Cox (International Business); Dr Kavooos Mohannak (Management); Mr Bill Proud (Marketing); and Ms Amisha Mehta (Public Relations)

Campus: Gardens Point

### Recommended Study

Chemistry, Maths C and Physics are recommended.

### Career Outcomes

Electrical and computer engineers design, install and maintain electrical, electronic, telecommunications and computing systems on behalf of governments and private companies. Graduates of the Bachelor of Business are skilled in many aspects of business including: accountancy, advertising, banking and finance, economics, electronic business, human resource management, international business, management, marketing and public relations.

### Overview

Students combine engineering knowledge in electronics, computer systems, telecommunications and electric power with a business course majoring in one of accountancy, advertising, economics, finance, human resource management, international business, management, marketing or public relations.

### Professional Recognition

This degree meets the requirements for membership of Engineers Australia.

Business component: Students may be eligible for membership to a number of professional bodies depending on choice of major and unit selection. Details on

professional recognition can be found under the individual majors of the Bachelor of Business (BS05).

### Special Course Requirements

A candidate for the degree of Bachelor of Engineering must obtain at least 60 days of industrial employment/practice in an engineering environment as part of the Work Integrated Learning unit, before graduating.

### Course Design

Students are required to complete 480 credit points comprised of 288 credit points from the Bachelor of Engineering program and 192 credit points from the Bachelor of Business program. Students supplement the engineering component of this program with the 96 credit point Faculty Core units in the Bachelor of Business program together with a 96 credit point Major in one of the following: Accountancy, Advertising, Economics, Finance, Human Resource Management, International Business, Management, Marketing or Public Relations.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

All domestic applicants offered admission to undergraduate award courses may apply to defer commencement of their study. A deferment application will not normally be considered for courses where specific admission requirements apply, for example submission of folios or undertaking auditions. Applicants are not entitled to hold a deferred place and hold a place in another QUT course for the same period.

Find out more on deferment.

### Important Information

Faculty of Business rules and procedures are outlined in the Undergraduate Guidelines booklet.

Other useful information can be found on Student Services website.

### Further Information

Faculty of Built Environment and Engineering: Phone +61 7 3138 1993, Fax +61 7 3138 1516, email:

[bee.enquiries@qut.edu.au](mailto:bee.enquiries@qut.edu.au)

Faculty of Business: Phone +61 7 3138 2050, Fax +61 7 3138 1055, email: [bus@qut.edu.au](mailto:bus@qut.edu.au)

### Course structure - Civil Engineering - Students who commenced in 2010

#### Year 1, Semester 1

ENB110 Engineering Statics and Materials

MAB125 Foundations of Engineering Mathematics

OR

MAB126 Mathematics for Engineering 1



# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Business Unit  
Business Unit

BEB801 Project 1  
ENB372 Design and Planning of Highways  
ENB378 Water Engineering  
Business Unit

## Year 1, Semester 2

ENB130 Mechanical and Thermal Energy  
MAB126 Mathematics for Engineering 1  
OR  
MAB127 Mathematics for Engineering 2  
Business Unit  
Business Unit

## Year 5, Semester 2

ENB376 Transport Engineering  
ENB471 Design of Concrete Structures and Foundations  
Business Unit  
Business Unit

## Year 2, Semester 1

ENB100 Introducing Professional Learning  
ENB120 Electrical Energy and Measurements  
ENB270 Engineering Mechanics of Materials  
ENB273 Civil Materials

## Course structure - Electrical Engineering - Students who commenced in 2010

### Year 1, Semester 1

ENB120 Electrical Energy and Measurements  
MAB125 Foundations of Engineering Mathematics  
OR  
MAB126 Mathematics for Engineering 1  
Business Unit  
Business Unit

## Year 2, Semester 2

ENB150 Introducing Engineering Design  
ENB200 Introducing Sustainability  
Business Unit  
Business Unit

PLEASE NOTE: YEAR 3 ONWARDS CURRENTLY BEING REVISED. (Engineering content only.)

### Year 1, Semester 2

ENB130 Mechanical and Thermal Energy  
MAB126 Mathematics for Engineering 1  
OR  
MAB127 Mathematics for Engineering 2  
Business Unit  
Business Unit

## Year 3, Semester 1

ENB271 Design of Structural Timber and Earthworks  
ENB280 Hydraulic Engineering  
Business Unit  
Business Unit

### Year 2, Semester 1

ENB100 Introducing Professional Learning  
ENB110 Engineering Statics and Materials  
ENB250 Electrical Circuits  
MAB127 Mathematics for Engineering 2  
OR  
MAB233 Engineering Mathematics 3

## Year 3, Semester 2

BEB701 Work Integrated Learning 1  
ENB272 Geotechnical Engineering 1  
ENB275 Project Engineering 1  
MAB233 Engineering Mathematics 3

## Year 4, Semester 1

ENB276 Structural Engineering 1  
ENB371 Geotechnical Engineering 2  
Business Unit  
Business Unit

### Year 2, Semester 2

ENB150 Introducing Engineering Design  
ENB200 Introducing Sustainability  
Business Unit  
Business Unit

## Year 4, Semester 2

ENB375 Structural Engineering 2  
Business Unit  
Business Unit  
Business Unit

### Year 3, Semester 1

ENB240 Introduction To Electronics  
ENB246 Engineering Problem Solving  
Business Unit  
Business Unit

## Year 5, Semester 1

### Year 3, Semester 2

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice

Business Unit

## Year 4, Semester 1

ENB301	Instrumentation and Control
ENB340	Power Systems and Machines OR
MAB233	Engineering Mathematics 3 Business Unit Business Unit

## Year 4, Semester 2

ENB345	Advanced Design and Professional Practice Business Unit Business Unit Business Unit
--------	--

## Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1
ENB340	Power Systems and Machines OR Electrical Engineering Selective Business Unit

## Year 5, Semester 2

BEB802	Project 2
ENB344	Industrial Electronics Business Unit Business Unit

## Electrical Engineering Selectives

ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems

## Course structure - Mechanical Engineering - Students who commenced in 2010

### Year 1, Semester 1

ENB110	Engineering Statics and Materials
MAB125	Foundations of Engineering Mathematics OR
MAB126	Mathematics for Engineering 1 Business Unit

### Year 1, Semester 2

ENB130	Mechanical and Thermal Energy
MAB126	Mathematics for Engineering 1 OR
MAB127	Mathematics for Engineering 2 Business Unit Business Unit

### Year 2, Semester 1

ENB100	Introducing Professional Learning
ENB120	Electrical Energy and Measurements
ENB212	Strength of Materials
MAB127	Mathematics for Engineering 2 OR
MAB233	Engineering Mathematics 3

### Year 2, Semester 2

ENB150	Introducing Engineering Design
ENB200	Introducing Sustainability Business Unit Business Unit

### Year 3, Semester 1

ENB211	Dynamics
ENB231	Materials and Manufacturing 1 Business Unit Business Unit

### Year 3, Semester 2

ENB205	Electrical and Computer Engineering
ENB215	Fundamentals of Mechanical Design
ENB221	Fluid Mechanics
ENB331	Materials and Manufacturing 2

### Year 4, Semester 1

BEB701	Work Integrated Learning 1
ENB222	Thermodynamics 1 Business Unit Business Unit

### Year 4, Semester 2

MAB233	Engineering Mathematics 3 OR Mechanical Engineering Selective Business Unit Business Unit Business Unit
--------	--

### Year 5, Semester 1

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

BEB801	Project 1
ENB316	Design of Machine Elements
ENB311	Stress Analysis
	OR
ENB312	Dynamics of Machinery
	OR
ENB421	Thermodynamics 2
	Business Unit

## Year 5, Semester 2

BEB802	Project 2
ENB313	Automatic Control
	OR
ENB317	Design and Maintenance of Machinery
	OR
ENB321	Fluids Dynamics
	Business Unit
	Business Unit

## Mechanical Engineering Selectives

ENB314	Industrial Noise and Vibration
ENB333	Operations Management
ENB336	Industrial Engineering
ENB422	Energy Management
ENB423	Heating, Ventilation and Air-Conditioning
ENB432	Engineering Asset Management and Maintenance
ENB433	Plant and Process Design
ENB434	Tribology
ENB435	Computer Integrated Manufacturing

## Course structure - Accountancy

### Year 1 Semester 1

BSB110	Accounting
BSB115	Management

### Year 1 Semester 2

BSB111	Business Law and Ethics
BSB123	Data Analysis

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

AYB200	Financial Accounting
AYB225	Management Accounting

### Year 3 Semester 1

AYB221	Computerised Accounting Systems
EFB210	Finance 1

### Year 3 Semester 2

No Faculty of Business units studies this semester.

### Year 4 Semester 1

AYB230	Corporations Law
AYB321	Strategic Management Accounting

### Year 4 Semester 2

AYB219	Taxation Law
AYB301	Audit and Assurance
AYB340	Company Accounting

### Year 5 Semester 1

BSB113	Economics
--------	-----------

### Year 5 Semester 2

AYB311	Financial Accounting Issues
BSB126	Marketing

## Course structure - Advertising

### Year 1 Semester 1

BSB113	Economics
BSB126	Marketing

### Year 1 Semester 2

BSB110	Accounting
BSB115	Management

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

AMB220	Advertising Theory and Practice
BSB124	Working in Business

### Year 3 Semester 1

AMB200	Consumer Behaviour
AMB201	Marketing and Audience Research

### Year 3 Semester 2

No Faculty of Business units studies this semester.

### Year 4 Semester 1

AMB318	Advertising Copywriting
AMB319	Media Planning

### Year 4 Semester 2

AMB320	Advertising Management
AMB330	Advertising Planning Portfolio
BSB111	Business Law and Ethics

## Year 5 Semester 1

AMB339 Advertising Campaigns

## Year 5 Semester 2

BSB119 Global Business

BSB123 Data Analysis

### Course structure - Economics

#### Year 1 Semester 1

BSB113 Economics

BSB115 Management

#### Year 1 Semester 2

BSB123 Data Analysis

BSB124 Working in Business

#### Year 2 Semester 1

No Faculty of Business units studies this semester.

#### Year 2 Semester 2

BSB110 Accounting

EFB223 Economics 2

#### Year 3 Semester 1

EFB330 Intermediate Macroeconomics

EFB331 Intermediate Microeconomics

#### Year 3 Semester 2

No Faculty of Business units studies this semester.

#### Year 4 Semester 1

EFB222 Quantitative Methods For Economics and Finance

Choice units or remaining Faculty Core Units

#### Year 4 Semester 2

BSB111 Business Law and Ethics

Choice units or remaining Faculty Core Units

Choice units or remaining Faculty Core Units

#### Year 5 Semester 1

Choice units or remaining Faculty Core Units

#### Year 5 Semester 2

EFB338 Contemporary Application of Economic Theory

Choice units or remaining Faculty Core Units

#### Choice Units

Choose any three of the following:

EFB332 Applied Behavioural Economics

EFB333 Introductory Econometrics

EFB334 Environmental Economics and Policy

EFB336 International Economics

EFB337 Game Theory and Applications

#### Important information:

Please note: BSB119 and BSB126 are the remaining Faculty Core Units to be completed. Please check unit availability when selecting Choice units.

### Course structure - Finance

#### Year 1 Semester 1

BSB113 Economics

BSB115 Management

#### Year 1 Semester 2

BSB124 Working in Business

BSB126 Marketing

#### Year 2 Semester 1

No Faculty of Business units studies this semester.

#### Year 2 Semester 2

BSB110 Accounting

BSB123 Data Analysis

#### Year 3 Semester 1

EFB210 Finance 1

EFB222 Quantitative Methods For Economics and Finance

#### Year 3 Semester 2

No Faculty of Business units studies this semester.

#### Year 4 Semester 1

BSB111 Business Law and Ethics

EFB307 Finance 2

#### Year 4 Semester 2

EFB201 Financial Markets

EFB223 Economics 2

EFB312 International Finance

#### Year 5 Semester 1

EFB335 Investments

#### Year 5 Semester 2

BSB119 Global Business

EFB340 Finance Capstone

### Course structure - Human Resource Management

#### Year 1 Semester 1

BSB113 Economics

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

BSB115 Management

## Year 1 Semester 2

BSB111 Business Law and Ethics

BSB124 Working in Business

## Year 2 Semester 1

No Faculty of Business units studies this semester.

## Year 2 Semester 2

BSB123 Data Analysis

MGB200 Leading Organisations

## Year 3 Semester 1

MGB207 Human Resource Issues and Strategy

MGB220 Business Research Methods

## Year 3 Semester 2

No Faculty of Business units studies this semester.

## Year 4 Semester 1

MGB331 Learning and Development in Organisations

MGB339 Performance and Reward

## Year 4 Semester 2

BSB110 Accounting

MGB201 Contemporary Employment Relations

MGB320 Recruitment and Selection

## Year 5 Semester 1

BSB126 Marketing

## Year 5 Semester 2

BSB119 Global Business

MGB370 Personal and Professional Development

## Course structure - International Business

### Year 1 Semester 1

BSB119 Global Business

BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting

BSB115 Management

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

BSB113 Economics

BSB123 Data Analysis

## Year 3 Semester 1

AMB210 Importing and Exporting

AYB227 International Accounting

## Year 3 Semester 2

No Faculty of Business units studies this semester.

## Year 4 Semester 1

AMB303 International Logistics

MGB225 Intercultural Communication and Negotiation Skills

## Year 4 Semester 2

AMB336 International Marketing

BSB111 Business Law and Ethics

EFB240 Finance for International Business

## Year 5 Semester 1

AMB369 International Business Strategy

## Year 5 Semester 2

BSB124 Working in Business

MGB340 International Business in the Asia-pacific

## Course structure - Management

### Year 1 Semester 1

BSB113 Economics

BSB115 Management

### Year 1 Semester 2

BSB124 Working in Business

BSB126 Marketing

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

BSB110 Accounting

BSB119 Global Business

### Year 3 Semester 1

BSB111 Business Law and Ethics

MGB200 Leading Organisations

### Year 3 Semester 2

No Faculty of Business units studies this semester.

### Year 4 Semester 1

BSB123 Data Analysis

MGB210 Managing Operations

### Year 4 Semester 2

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

MGB223	Entrepreneurship and Innovation
MGB225	Intercultural Communication and Negotiation Skills
MGB309	Strategic Management

## Year 5 Semester 1

MGB324	Managing Business Growth
--------	--------------------------

## Year 5 Semester 2

MGB310	Sustainability in A Changing Environment
MGB335	Project Management

## Course structure - Marketing

### Year 1 Semester 1

BSB113	Economics
BSB126	Marketing

### Year 1 Semester 2

BSB111	Business Law and Ethics
BSB115	Management

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

BSB110	Accounting
BSB124	Working in Business

### Year 3 Semester 1

AMB201	Marketing and Audience Research
AMB240	Marketing Planning and Management

### Year 3 Semester 2

No Faculty of Business units studies this semester.

### Year 4 Semester 1

AMB200	Consumer Behaviour
AMB340	Services Marketing

### Year 4 Semester 2

AMB202	Integrated Marketing Communication
AMB335	E-marketing Strategies
BSB123	Data Analysis

### Year 5 Semester 1

AMB336	International Marketing
--------	-------------------------

### Year 5 Semester 2

AMB359	Strategic Marketing
BSB119	Global Business

## Course structure - Public Relations

### Year 1 Semester 1

BSB119	Global Business
BSB126	Marketing

### Year 1 Semester 2

BSB110	Accounting
BSB115	Management

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

AMB201	Marketing and Audience Research
BSB113	Economics

### Year 3 Semester 1

AMB263	Introduction To Public Relations
AMB264	Public Relations Techniques

### Year 3 Semester 2

No Faculty of Business units studies this semester.

### Year 4 Semester 1

AMB372	Public Relations Planning
AMB373	Corporate Communication

### Year 4 Semester 2

AMB374	Global Public Relations Cases
AMB375	Public Relations Management
BSB123	Data Analysis

### Year 5 Semester 1

AMB379	Public Relations Campaigns
--------	----------------------------

### Year 5 Semester 2

BSB111	Business Law and Ethics
BSB124	Working in Business

## Course structure - Civil Engineering - Students who commenced in 2009

### Year 1, Semester 1

ENB101	Engineering Mechanics 1
MAB131	Engineering Mathematics 1A
	OR
MAB180	Engineering Mathematics 1B
	Business Unit
	Business Unit

### Year 1, Semester 2

ENB102	Engineering Mechanics 2
MAB132	Engineering Mathematics 2A



OR  
 MAB182 Engineering Mathematics 2B  
 Business Unit  
 Business Unit

Engineering  
 ENB471 Design of Concrete Structures and  
 Foundations

**Course structure - Civil Engineering - Students who  
 commenced in 2007 & 2008**

**Year 2, Semester 1**

ENB100 Introducing Professional Learning  
 ENB104 Engineering Materials  
 ENB271 Design of Structural Timber and Earthworks  
 MAB233 Engineering Mathematics 3

**Year 2, Semester 2**

ENB200 Introducing Sustainability  
 Business Unit  
 Business Unit  
 Business Unit

**Year 3, Semester 1**

ENB273 Civil Materials  
 ENB280 Hydraulic Engineering  
 Business Unit  
 Business Unit

**Year 3, Semester 2**

ENB272 Geotechnical Engineering 1  
 ENB274 Design of Environmentally Sustainable  
 Systems  
 ENB275 Project Engineering 1  
 Business Unit

**Year 4, Semester 1**

ENB276 Structural Engineering 1  
 ENB371 Geotechnical Engineering 2  
 Business Unit  
 Business Unit

**Year 4, Semester 2**

ENB375 Structural Engineering 2  
 Business Unit  
 Business Unit  
 Business Unit

**Year 5, Semester 1**

BEB801 Project 1  
 ENB372 Design and Planning of Highways  
 ENB378 Water Engineering  
 Business Unit

**Year 5, Semester 2**

BEB701 Work Integrated Learning 1  
 ENB376 Transport Engineering  
 ENB377 Water and Waste Water Treatment

**Year 1, Semester 1**

ENB101 Engineering Mechanics 1  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1B  
 Business Unit  
 Business Unit

**Year 1, Semester 2**

ENB102 Engineering Mechanics 2  
 MAB132 Engineering Mathematics 2A  
 OR  
 MAB182 Engineering Mathematics 2B  
 Business Unit  
 Business Unit

**Year 2, Semester 1**

BEB100 Introducing Professional Learning  
 ENB104 Engineering Materials  
 ENB271 Design of Structural Timber and Earthworks  
 MAB233 Engineering Mathematics 3

**Year 2, Semester 2**

ENB201 Fluid Mechanics  
 Business Unit  
 Business Unit  
 Business Unit

**Year 3, Semester 1**

ENB272 Geotechnical Engineering 1  
 ENB273 Civil Materials  
 Business Unit  
 Business Unit

**Year 3, Semester 2**

ENB200 Introducing Sustainability  
 OR (prior to 2009)  
 BEB200 Introducing Sustainability  
 ENB274 Design of Environmentally Sustainable  
 Systems  
 ENB276 Structural Engineering 1  
 Business Unit

**Year 4, Semester 1**

ENB372 Design and Planning of Highways

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB375 Structural Engineering 2  
Business Unit  
Business Unit

Business Unit  
Business Unit

## Year 4, Semester 2

ENB371 Geotechnical Engineering 2  
Business Unit  
Business Unit  
Business Unit

## Year 3, Semester 1

ENB340 Power Systems and Machines  
MAB233 Engineering Mathematics 3  
Business Unit  
Business Unit

## Year 5, Semester 1

BEB801 Project 1  
ENB378 Water Engineering  
ENB471 Design of Concrete Structures and Foundations  
Business Unit

## Year 3, Semester 2

ENB243 Linear Circuits and Systems  
ENB244 Microprocessors and Digital Systems  
ENB245 Introduction To Design and Professional Practice  
Business Unit

## Year 5, Semester 2

BEB701 Work Integrated Learning 1  
ENB275 Project Engineering 1  
ENB376 Transport Engineering  
ENB377 Water and Waste Water Treatment Engineering

## Year 4, Semester 1

ENB301 Instrumentation and Control  
ENB342 Signals, Systems and Transforms  
Business Unit  
Business Unit

## Course structure - Electrical Engineering - Students who commenced in 2009

### Year 1, Semester 1

BEB100 Introducing Professional Learning  
MAB131 Engineering Mathematics 1A  
OR  
MAB180 Engineering Mathematics 1B  
Business Unit  
Business Unit

## Year 4, Semester 2

ENB345 Advanced Design and Professional Practice  
Business Unit  
Business Unit  
Business Unit

### Year 1, Semester 2

ENB103 Electrical Engineering  
MAB132 Engineering Mathematics 2A  
OR  
MAB182 Engineering Mathematics 2B  
Business Unit  
Business Unit

## Year 5, Semester 1

BEB801 Project 1  
ENB346 Digital Communications  
Electrical Engineering Selective  
Business Unit

### Year 2, Semester 1

ENB240 Introduction To Electronics  
ENB242 Introduction To Telecommunications  
ENB246 Engineering Problem Solving  
PCB150 Physics 1H

## Year 5, Semester 2

BEB701 Work Integrated Learning 1  
BEB802 Project 2  
ENB344 Industrial Electronics  
Electrical Engineering Selective

### Year 2, Semester 2

ENB200 Introducing Sustainability  
Business Unit

## Electrical Engineering Selectives

ENB231 Materials and Manufacturing 1  
ENB334 Design For Manufacturing  
ENB350 Real-time Computer-based Systems  
ENB352 Communication Environments For Embedded Systems  
ENB436 Mechatronics System Design  
ENB440 RF and Applied Electromagnetics  
ENB441 Applied Image Processing  
ENB445 RF Communication Technologies  
ENB446 Wireless Communications

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

## Course structure - Electrical Engineering - Students who commenced in 2007 & 2008

### Year 1, Semester 1

BEB100	Introducing Professional Learning
MAB131	Engineering Mathematics 1A OR
MAB180	Engineering Mathematics 1B Business Unit Business Unit

### Year 1, Semester 2

ENB103	Electrical Engineering
MAB132	Engineering Mathematics 2A OR
MAB182	Engineering Mathematics 2B Business Unit Business Unit

### Year 2, Semester 1

ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
MAB233	Engineering Mathematics 3
PCB136	Engineering Physics 1C

### Year 2, Semester 2

ENB200	Introducing Sustainability OR ( prior to 2009)
BEB200	Introducing Sustainability Business Unit Business Unit Business Unit

### Year 3, Semester 1

ENB242	Introduction To Telecommunications
ENB340	Power Systems and Machines Business Unit Business Unit

### Year 3, Semester 2

ENB243	Linear Circuits and Systems
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice Business Unit

### Year 4, Semester 1

ENB301	Instrumentation and Control
ENB342	Signals, Systems and Transforms Business Unit Business Unit

### Year 4, Semester 2

ENB345	Advanced Design and Professional Practice Business Unit Business Unit Business Unit
--------	--

### Year 5, Semester 1

BEB701	Work Integrated Learning 1
BEB801	Project 1 Electrical Engineering Selective Business Unit

### Year 5, Semester 2

BEB802	Project 2
ENB344	Industrial Electronics
ENB346	Digital Communications Electrical Engineering Selective

### Electrical Engineering Selectives

ENB231	Materials and Manufacturing 1
ENB334	Design For Manufacturing
ENB350	Real-time Computer-based Systems
ENB352	Communication Environments For Embedded Systems
ENB436	Mechatronics System Design
ENB440	RF and Applied Electromagnetics
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems

INB353 Wireless and Mobile Networks  
 INB860 Computational Intelligence for Control and Embedded Systems

**Course structure - Mechanical Engineering - Students who commenced in 2009**

**Year 1, Semester 1**

BEB100 Introducing Professional Learning  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1B  
 Business Unit  
 Business Unit

**Year 1, Semester 2**

ENB104 Engineering Materials  
 MAB132 Engineering Mathematics 2A  
 OR  
 MAB182 Engineering Mathematics 2B  
 Business Unit  
 Business Unit

**Year 2, Semester 1**

ENB101 Engineering Mechanics 1  
 ENB120 Electrical Energy and Measurements  
 ENB231 Materials and Manufacturing 1  
 PCB150 Physics 1H

**Year 2, Semester 2**

ENB200 Introducing Sustainability  
 Business Unit  
 Business Unit  
 Business Unit

**Year 3, Semester 1**

ENB211 Dynamics  
 ENB212 Strength of Materials  
 Business Unit  
 Business Unit

**Year 3, Semester 2**

ENB215 Fundamentals of Mechanical Design  
 ENB221 Fluid Mechanics  
 ENB331 Materials and Manufacturing 2  
 Business Unit

**Year 4, Semester 1**

ENB222 Thermodynamics 1  
 MAB233 Engineering Mathematics 3  
 Business Unit  
 Business Unit

**Year 4, Semester 2**

ENB205 Electrical and Computer Engineering  
 Business Unit  
 Business Unit  
 Business Unit

**Year 5, Semester 1**

BEB801 Project 1  
 ENB316 Design of Machine Elements  
 Two of:  
 ENB311 Stress Analysis  
 ENB312 Dynamics of Machinery  
 ENB421 Thermodynamics 2

**Year 5, Semester 2**

BEB701 Work Integrated Learning 1  
 BEB802 Project 2  
 One of:  
 ENB313 Automatic Control  
 ENB317 Design and Maintenance of Machinery  
 ENB321 Fluids Dynamics  
 Business Unit

**Course structure - Mechanical Engineering - Students who commenced in 2008**

**Year 1, Semester 1**

BEB100 Introducing Professional Learning  
 MAB131 Engineering Mathematics 1A  
 OR  
 MAB180 Engineering Mathematics 1B  
 Business Unit  
 Business Unit

**Year 1, Semester 2**

ENB104 Engineering Materials  
 MAB132 Engineering Mathematics 2A  
 OR  
 MAB182 Engineering Mathematics 2B  
 Business Unit  
 Business Unit

**Year 2, Semester 1**

ENB101 Engineering Mechanics 1  
 ENB231 Materials and Manufacturing 1  
 MAB233 Engineering Mathematics 3  
 PCB136 Engineering Physics 1C

**Year 2, Semester 2**

ENB103 Electrical Engineering

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Business Unit

Business Unit

Business Unit

## Year 3, Semester 1

ENB105 Electrical and Computer Engineering

ENB211 Dynamics

Business Unit

Business Unit

## Year 3, Semester 2

ENB200 Introducing Sustainability

ENB102 Engineering Mechanics 2

ENB201 Fluid Mechanics

Business Unit

## Year 4, Semester 1

BEB701 Work Integrated Learning 1

ENB311 Stress Analysis

Business Unit

Business Unit

## Year 4, Semester 2

ENB215 Fundamentals of Mechanical Design

Business Unit

Business Unit

Business Unit

## Year 5, Semester 1

BEB801 Project 1

ENB222 Thermodynamics 1

ENB312 Dynamics of Machinery

ENB316 Design of Machine Elements

## Year 5, Semester 2

BEB802 Project 2

Business Unit

Choose two of:

ENB313 Automatic Control

ENB317 Design and Maintenance of Machinery

ENB321 Fluids Dynamics

## Course structure - Mechanical Engineering - Students who commenced in 2007

### Year 1, Semester 1

BEB100 Introducing Professional Learning

MAB131 Engineering Mathematics 1A

OR

MAB180 Engineering Mathematics 1B

Business Unit

Business Unit

### Year 1, Semester 2

ENB104 Engineering Materials

MAB132 Engineering Mathematics 2A

OR

MAB182 Engineering Mathematics 2B

Business Unit

Business Unit

### Year 2, Semester 1

ENB101 Engineering Mechanics 1

ENB231 Materials and Manufacturing 1

MAB233 Engineering Mathematics 3

PCB136 Engineering Physics 1C

### Year 2, Semester 2

ENB103 Electrical Engineering

Business Unit

Business Unit

Business Unit

### Year 3, Semester 1

ENB105 Electrical and Computer Engineering

ENB211 Dynamics

Business Unit

Business Unit

### Year 3, Semester 2

BEB200 Introducing Sustainability

ENB102 Engineering Mechanics 2

ENB201 Fluid Mechanics

Business Unit

### Year 4, Semester 1

BEB701 Work Integrated Learning 1

ENB311 Stress Analysis

Business Unit

Business Unit

### Year 4, Semester 2

ENB215 Fundamentals of Mechanical Design

Business Unit

Business Unit

Business Unit

### Year 5, Semester 1

BEB801 Project 1

ENB316 Design of Machine Elements

Choose two of:

ENB313 Automatic Control

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

ENB333	Operations Management
ENB432	Engineering Asset Management and Maintenance
ENB435	Computer Integrated Manufacturing

## Year 5, Semester 2

BEB802	Project 2
ENB222	Thermodynamics 1 Business Unit Choose one of:
ENB312	Dynamics of Machinery
ENB317	Design and Maintenance of Machinery
ENB321	Fluids Dynamics
ENB331	Materials and Manufacturing 2

## Accountancy Major - Students who commenced in 2009

### Year 1 Semester 1

BSB110	Accounting
BSB115	Management

### Year 1 Semester 2

BSB123	Data Analysis
BSB126	Marketing

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

AYB200	Financial Accounting
AYB225	Management Accounting
BSB111	Business Law and Ethics

### Year 3 Semester 1

AYB221	Computerised Accounting Systems
EFB210	Finance 1

### Year 3 Semester 2

AYB219	Taxation Law
--------	--------------

### Year 4 Semester 1

AYB230	Corporations Law
AYB321	Strategic Management Accounting

### Year 4 Semester 2

AYB301	Audit and Assurance
AYB340	Company Accounting
BSB113	Economics

### Year 5 Semester 1

AYB311	Financial Accounting Issues
--------	-----------------------------

## Accountancy Major - Students who commenced in

## 2007-2008

### Year 1 Semester 1

BSB110	Accounting
BSB111	Business Law and Ethics

### Year 1 Semester 2

BSB113	Economics
BSB122	now replaced by BSB123 Data Analysis

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

AYB200	Financial Accounting
AYB230	Corporations Law
BSB114	now replaced by BSB124 Working in Business

### Year 3 Semester 1

AYB225	Management Accounting
AYB340	Company Accounting

### Year 3 Semester 2

AYB221	Computerised Accounting Systems
--------	---------------------------------

### Year 4 Semester 1

AYB301	Audit and Assurance
AYB311	Financial Accounting Issues
	or
AYB321	Strategic Management Accounting

### Year 4 Semester 2

AYB219	Taxation Law
EFB101	now replaced by EFB222 Quantitative Methods for Economics
EFB210	Finance 1

### Year 5 Semester 1

BSB115	Management
--------	------------

## Advertising Major - Students who commenced in 2007-2009

### Year 1 Semester 1

BSB113	Economics
BSB126	Marketing

### Year 1 Semester 2

BSB110	Accounting
BSB115	Management

### Year 2 Semester 1

No Faculty of Business units studies this semester.



**Year 2 Semester 2**

BSB119 Global Business  
 BSB123 Data Analysis  
 BSB124 Working in Business

**Year 3 Semester 1**

AMB200 Consumer Behaviour  
 AMB220 Advertising Theory and Practice

**Year 3 Semester 2**

AMB201 Marketing and Audience Research

**Year 4 Semester 1**

AMB318 Advertising Copywriting  
 AMB319 Media Planning

**Year 4 Semester 2**

AMB320 Advertising Management  
 AMB330 Advertising Planning Portfolio  
 BSB111 Business Law and Ethics

**Year 5 Semester 1**

AMB339 Advertising Campaigns

**Banking & Finance Major - Students who commenced in 2007-2008**

**Year 1 Semester 1**

BSB113 Economics  
 BSB115 Management

**Year 1 Semester 2**

BSB124 Working in Business  
 BSB126 Marketing

**Year 2 Semester 1**

No Faculty of Business units studies this semester.

**Year 2 Semester 2**

BSB110 Accounting  
 BSB123 Data Analysis  
 BSB119 Global Business

**Year 3 Semester 1**

EFB210 Finance 1  
 EFB222 Quantitative Methods For Economics and Finance

**Year 3 Semester 2**

EFB307 Finance 2

**Year 4 Semester 1**

EFB333 Introductory Econometrics  
 EFB335 Investments

**Year 4 Semester 2**

EFB201 Financial Markets  
 EFB223 Economics 2  
 EFB312 International Finance

**Year 5 Semester 1**

BSB111 Business Law and Ethics

**Economics Major - Students who commenced in 2009**

**Year 1 Semester 1**

BSB113 Economics  
 BSB115 Management

**Year 1 Semester 2**

BSB123 Data Analysis  
 BSB124 Working in Business

**Year 2 Semester 1**

No Faculty of Business units studies this semester.

**Year 2 Semester 2**

BSB110 Accounting  
 EFB222 Quantitative Methods For Economics and Finance  
 EFB223 Economics 2

**Year 3 Semester 1**

EFB330 Intermediate Macroeconomics  
 EFB331 Intermediate Microeconomics

**Year 3 Semester 2**

Choice units or remaining Faculty Core Units

**Year 4 Semester 1**

Choice units or remaining Faculty Core Units  
 Choice units or remaining Faculty Core Units

**Year 4 Semester 2**

EFB338 Contemporary Application of Economic Theory  
 Choice units or remaining Faculty Core Units  
 Choice units or remaining Faculty Core Units

**Year 5 Semester 1**

BSB111 Business Law and Ethics

**Choice Units**

Choose any three of the following:

EFB332 Applied Behavioural Economics  
 EFB333 Introductory Econometrics  
 EFB334 Environmental Economics and Policy  
 EFB336 International Economics

EFB337 Game Theory and Applications

BSB126 Marketing

## Important Information

Please note: BSB119 and BSB126 are the remaining Faculty Core Units to be completed. Please check unit availability when selecting Choice units.

## Year 2 Semester 1

No Faculty of Business units studies this semester.

## Economics Major - Students who commenced in 2007-2008

## Year 2 Semester 2

BSB110 Accounting  
BSB119 Global Business  
BSB123 Data Analysis

## Year 1 Semester 1

BSB113 Economics  
BSB115 Management

## Year 3 Semester 1

EFB210 Finance 1  
EFB222 Quantitative Methods For Economics and Finance

## Year 1 Semester 2

BSB114 now replaced by BSB124 Working in Business  
BSB110 Accounting

## Year 3 Semester 2

EFB307 Finance 2

## Year 2 Semester 1

No Faculty of Business units studies this semester.

## Year 4 Semester 1

EFB223 Economics 2  
EFB335 Investments

## Year 2 Semester 2

BSB123 Data Analysis  
BSB119 Global Business  
EFB223 Economics 2

## Year 4 Semester 2

EFB201 Financial Markets  
EFB312 International Finance  
EFB340 Finance Capstone

## Year 3 Semester 1

EFB330 Intermediate Macroeconomics  
EFB331 Intermediate Microeconomics

## Year 5 Semester 1

BSB111 Business Law and Ethics

## Year 3 Semester 2

EFB222 Quantitative Methods For Economics and Finance

## Human Resource Management Major - Students who commenced in 2009

## Year 1 Semester 1

BSB113 Economics  
BSB115 Management

## Year 4 Semester 1

BSB111 Business Law and Ethics  
EFB333 Introductory Econometrics

## Year 1 Semester 2

BSB124 Working in Business  
BSB126 Marketing

## Year 4 Semester 2

EFB328 Substitute any Level 3 EFB3xx unit  
EFB329 Contemporary Applications of Economics Theory  
EFB336 International Economics

## Year 2 Semester 1

No Faculty of Business units studies this semester.

## Year 5 Semester 1

BSB126 Marketing

## Year 2 Semester 2

BSB110 Accounting  
BSB119 Global Business  
MGB223 Entrepreneurship and Innovation

## Finance Major - Students who commenced in 2009

## Year 1 Semester 1

BSB113 Economics  
BSB115 Management

## Year 3 Semester 1

MGB201 Contemporary Employment Relations  
MGB207 Human Resource Issues and Strategy

## Year 1 Semester 2

BSB124 Working in Business

## Year 3 Semester 2

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

MGB200 Leading Organisations

## Year 4 Semester 1

MGB331 Learning and Development in Organisations

MGB339 Performance and Reward

## Year 4 Semester 2

MGB220 Business Research Methods

MGB320 Recruitment and Selection

MGB370 Personal and Professional Development

## Year 5 Semester 1

BSB111 Business Law and Ethics

### **International Business Major - Students who commenced in 2007-2009**

#### Year 1 Semester 1

BSB119 Global Business

BSB126 Marketing

#### Year 1 Semester 2

BSB110 Accounting

BSB115 Management

#### Year 2 Semester 1

No Faculty of Business units studies this semester.

#### Year 2 Semester 2

BSB113 Economics

BSB123 Data Analysis

BSB124 Working in Business

#### Year 3 Semester 1

AYB227 International Accounting

MGB225 Intercultural Communication and Negotiation Skills

#### Year 3 Semester 2

AMB210 Importing and Exporting

#### Year 4 Semester 1

AMB303 International Logistics

AMB336 International Marketing

#### Year 4 Semester 2

AMB369 International Business Strategy

EFB240 Finance for International Business

MGB340 International Business in the Asia-pacific

#### Year 5 Semester 1

BSB111 Business Law and Ethics

### **Management Major - Students who commenced in 2009**

#### Year 1 Semester 1

BSB113 Economics

BSB115 Management

#### Year 1 Semester 2

BSB124 Working in Business

BSB126 Marketing

#### Year 2 Semester 1

No Faculty of Business units studies this semester.

#### Year 2 Semester 2

BSB119 Global Business

BSB123 Data Analysis

MGB200 Leading Organisations

#### Year 3 Semester 1

MGB210 Managing Operations

MGB223 Entrepreneurship and Innovation

#### Year 3 Semester 2

MGB225 Intercultural Communication and Negotiation Skills

#### Year 4 Semester 1

MGB309 Strategic Management

MGB324 Managing Business Growth

#### Year 4 Semester 2

BSB110 Accounting

MGB310 Sustainability in A Changing Environment

MGB335 Project Management

#### Year 5 Semester 1

BSB111 Business Law and Ethics

### **Management Major - Students who commenced in 2007-2008**

#### Year 1 Semester 1

BSB113 Economics

BSB115 Management

#### Year 1 Semester 2

BSB114 now replaced by BSB124 Working in Business

BSB126 Marketing

#### Year 2 Semester 1

No Faculty of Business units studies this semester.

#### Year 2 Semester 2

BSB111 Business Law and Ethics

MGB200 Leading Organisations

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

BSB122 now replaced by MGB201  
 MGB201 Contemporary Employment Relations

## Year 3 Semester 1

MGB210 Managing Operations  
 MGB223 Entrepreneurship and Innovation

## Year 3 Semester 2

MGB310 Sustainability in A Changing Environment

## Year 4 Semester 1

MGB309 Strategic Management  
 Management Option Unit

## Year 4 Semester 2

BSB119 Global Business  
 MGB335 Project Management  
 Management Option Unit

## Year 5 Semester 1

BSB110 Accounting

## Management Option Unit List:

Students must choose 2 of the following units.  
 One must be a Level 3 unit:

MGB201 Contemporary Employment Relations  
 MGB218 Managing Business Growth  
 MGB225 Intercultural Communication and Negotiation Skills  
 MGB314 Organisational Consulting and Change  
 MGB370 Personal and Professional Development

## Marketing Major - Students who commenced in 2009

### Year 1 Semester 1

BSB113 Economics  
 BSB126 Marketing

### Year 1 Semester 2

BSB111 Business Law and Ethics  
 BSB115 Management

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

BSB110 Accounting  
 BSB119 Global Business  
 BSB124 Working in Business

### Year 3 Semester 1

AMB200 Consumer Behaviour  
 AMB201 Marketing and Audience Research

### Year 3 Semester 2

AMB240 Marketing Planning and Management

### Year 4 Semester 1

AMB336 International Marketing  
 AMB340 Services Marketing

### Year 4 Semester 2

AMB202 Integrated Marketing Communication  
 AMB335 E-marketing Strategies  
 BSB123 Data Analysis

### Year 5 Semester 1

AMB359 Strategic Marketing

## Marketing Major - Students who commenced in 2007-2008

### Year 1 Semester 1

BSB122 now replaced by BSB123 Data Analysis  
 BSB126 Marketing

### Year 1 Semester 2

BSB114 now replaced by BSB124 Working in Business  
 BSB119 Global Business

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

BSB111 Business Law and Ethics  
 BSB113 Economics  
 BSB115 Management

### Year 3 Semester 1

AMB200 Consumer Behaviour  
 AMB240 Marketing Planning and Management

### Year 3 Semester 2

AMB201 Marketing and Audience Research

### Year 4 Semester 1

AMB202 Integrated Marketing Communication  
 AMB340 Services Marketing

### Year 4 Semester 2

BSB110 Accounting  
 AMB335 E-marketing Strategies  
 AMB252 Business Decision Making  
 or  
 IBB213 International Marketing

### Year 5 Semester 1

AMB359 Strategic Marketing

## Public Relations Major - Students who commenced in 2007-2009

### Year 1 Semester 1

BSB119 Global Business

BSB126 Marketing

### Year 1 Semester 2

BSB110 Accounting

BSB115 Management

### Year 2 Semester 1

No Faculty of Business units studies this semester.

### Year 2 Semester 2

AMB201 Marketing and Audience Research

BSB113 Economics

BSB124 Working in Business

### Year 3 Semester 1

AMB263 Introduction To Public Relations

AMB264 Public Relations Techniques

### Year 3 Semester 2

BSB111 Business Law and Ethics

### Year 4 Semester 1

AMB372 Public Relations Planning

AMB373 Corporate Communication

### Year 4 Semester 2

AMB374 Global Public Relations Cases

AMB375 Public Relations Management

BSB123 Data Analysis

### Year 5 Semester 1

AMB379 Public Relations Campaigns

## Potential Careers:

Account Executive, Accountant, Actuary, Administrator, Advertising Professional, Banker, Banking and Finance Professional, Business Analyst, Certified Practising Accountant, Corporate Secretary, Economist, Electrical and Computer Engineer, Electrical Engineer, Electronic Commerce Developer, Exchange Student, Financial Advisor/Analyst, Financial Project Manager, Funds Manager, Government Officer, Human Resource Developer, Human Resource Manager, International Business Specialist, Internet Professional, Investment Manager, Manager, Marketing Officer/Manager, Public Relations Officer/Consultant, Public Servant, Publishing Professional, Risk Manager, Software Engineer, Stockbroker, Web Designer.

## Bachelor of Engineering (Electrical)/Bachelor of Information Technology (IX54)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 006384G

**Course duration (full-time):** 5 years

**Domestic fees (indicative):** 2010: CSP \$3,200 (indicative) per semester

**International Fees (indicative):** 2010: \$11,500 (indicative) per semester

**Domestic Entry:** February

**International Entry:** February

**QTAC code:** 419512

**Past rank cut-off:** 79

**Past OP cut-off:** 11

**OP Guarantee:** Yes

**Assumed knowledge:** English (4,SA), Maths B (4,SA)

**Preparatory studies:** For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

**Total credit points:** 480

**Course coordinator:** Dr R.Mahalinga-Iyer (Engineering), Mr Richard Thomas (Science & Technology)

**Discipline coordinator:** Dr Jasmine Banks (Engineering), Mr Richard Thomas (Information Technology Major)

**Campus:** Gardens Point

### Course Description

This degree equips you to build and apply creative, innovative IT solutions across diverse industries. A hands-on, real world based curriculum gives you the opportunity to explore a wide range of areas within the two strands of this degree, and gain deep understanding within your chosen area speciality, such as networking, software engineering, data warehousing, business process modelling, enterprise systems, information management, web technologies, or digital societies. You will experience an innovative, hands-on approach to learning through projects where you develop IT systems. You will be able to gain entrepreneurial skills if you wish to learn how to develop an idea into a commercial opportunity. You learn to harness your creativity and people skills to maximise the impact of your technical know-how in the booming IT marketplace. It positions you for a challenging and rewarding career within the global economy. Full-time students are eligible for the Cooperative Education Program; paid industry work experience with credit towards your degree. Students are also offered many other work-integrated learning opportunities where you receive first-hand industry experience.

The engineering component consists of studies in electronic systems engineering while the information technology component concentrates on software engineering. These studies integrate into a cohesive course which gives a wide and advanced study of modern electronic and computing systems. This double degree produces computer and electronic engineers especially suited for the development and application of electronic and computer systems in all areas of industry.

### Special Course Requirements

A candidate for the degree of Bachelor of Engineering (Electronics)/Bachelor of Information Technology must obtain at least 60 days of industrial experience in an engineering environment as part of the Work Integrated Learning unit.

### International Students

English language requirements

In addition to the above academic entry requirements, international students must meet the University's English language requirements of IELTS of 6.5 (with no lower than 6.0 for any one band).

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Career Outcomes

Many graduates find employment in government instrumentalities such as communications, railways, electricity supply, hospitals, transport and in private organisations that are using electronics, electronic systems, computers and microprocessors to monitor, control, communicate and optimise processes and production.

### Cooperative Education Program

IT's Cooperative Education Program gives you the opportunity of 10-12 months paid industry placement during your course where you can integrate real experience with what you're learning in your degree. Companies that QUT's Coop Ed students have worked with include Energex, Boeing, CITEC, CSC Mining, Environmental Protection Agency, Dialog, UNITAB, RACQ and many Queensland Government departments. The Coop Ed Program is available to Australian citizens and permanent residents only.

Find out more about the Cooperative Education Program.

### Recommended Study

Chemistry, Maths C and Physics.

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Engineering Technology, Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Engineering at QUT in 2010.

### Professional Recognition

This degree meets the requirements for membership of Engineers Australia. Graduates of the Bachelor of Information Technology component meet the knowledge requirements for admission to the Australian Computer Society (ACS).



**Pathways to Further Studies**

In 2001, the Faculty introduced an accelerated Honours program to increase the number of Bachelor of Information Technology students continuing their studies to complete the Honours year. The program allowed selected high achieving students the opportunity to undertake one postgraduate unit in the final semester of their a BIT degree (or double degree) which would be counted both for completion of the degree and towards the Honours program. The program also provided students with the opportunity to commence their Honours studies over the Summer Semester.

An alternative to the Honours program is the Master of Information Technology (Research). Students who complete a BIT degree (or double degree) with a grade point average equal to, or greater than 5 (7 point scale) and who have decided against enrolling in an Honours program, could undertake this course. In addition, students may wish to enrol in the re-designed postgraduate coursework Masters which has ten specialisations allowing students to either extend their area of interest or specialise in other areas at the Masters level.

**Deferment**

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

**Further Information**

For further information about this course, please contact the following:

**Engineering Coordinator**

Phone +61 7 3138 1993  
 Fax +61 7 3138 1516  
 email: [bee.enquiries@qut.edu.au](mailto:bee.enquiries@qut.edu.au)

**Science and Technology Coordinator**

Phone +61 7 3138 2782  
 Fax +61 7 3138 2703  
 email: [enquiry.scitech@qut.edu.au](mailto:enquiry.scitech@qut.edu.au)

**Full-time Course structure – Students commencing in 2010**

<b>Year 1, Semester 1</b>	
ENB100	Introducing Professional Learning
	OR
INB103	Industry Insights
ENB120	Electrical Energy and Measurements
INB104	Building IT Systems
MAB125	Foundations of Engineering Mathematics

	OR
MAB126	Mathematics for Engineering 1

<b>Year 1, Semester 2</b>	
ENB130	Mechanical and Thermal Energy
ENB200	Introducing Sustainability
INB102	Emerging Technology
MAB126	Mathematics for Engineering 1
	OR
MAB127	Mathematics for Engineering 2

<b>Year 2, Semester 1</b>	
ENB240	Introduction To Electronics
ENB246	Engineering Problem Solving
	OR
INB101	Impact of IT
ENB250	Electrical Circuits
MAB127	Mathematics for Engineering 2
	OR
MAB233	Engineering Mathematics 3

<b>Year 2, Semester 2</b>	
ENB150	Introducing Engineering Design
ENB242	Introduction To Telecommunications
ENB243	Linear Circuits and Systems
	IT Breadth Option Unit

<b>Year 3, Semester 1</b>	
ENB110	Engineering Statics and Materials
ENB241	Software Systems Design
	IT Breadth Option Unit
	IT Breadth Option Unit

<b>Year 3, Semester 2</b>	
ENB244	Microprocessors and Digital Systems
ENB245	Introduction To Design and Professional Practice
ENB343	Fields, Transmission and Propagation
	IT Breadth Option Unit

<b>Year 4, Semester 1</b>	
ENB301	Instrumentation and Control
ENB340	Power Systems and Machines
ENB342	Signals, Systems and Transforms
INB201	Scalable Systems Development

<b>Year 4, Semester 2</b>	
ENB344	Industrial Electronics
ENB345	Advanced Design and Professional Practice
MAB233	Engineering Mathematics 3
	OR

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Electrical Engineering Selective  
IT Specialist Option Unit

ENB101 Engineering Mechanics 1  
ENB104 Engineering Materials  
ENB240 Introduction To Electronics  
ENB242 Introduction To Telecommunications

## Year 5, Semester 1

ENB346 Digital Communications  
OR  
ENB350 Real-time Computer-based Systems  
BEB801 Project 1  
OR  
INB309-1 Major Project  
INB301 The Business of IT  
IT Specialist Option Unit

## Year 2, Semester 2

ENB243 Linear Circuits and Systems  
INB101 Impact of IT  
INB270 Programming  
IT Breadth Option Unit

## Year 5, Semester 2

BEB701 Work Integrated Learning 1  
BEB802 Project 2  
OR  
INB309-2 Major Project  
IT Specialist Option Unit  
IT Specialist Option Unit

## Year 3, Semester 1

ENB340 Power Systems and Machines  
ENB342 Signals, Systems and Transforms  
MAB233 Engineering Mathematics 3  
IT Breadth Option Unit

## Year 3, Semester 2

ENB241 Software Systems Design  
ENB244 Microprocessors and Digital Systems  
ENB245 Introduction To Design and Professional Practice  
IT Breadth Option Unit

## Electrical Engineering Selectives

ENB448 Signal Processing and Filtering  
ENB452 Advanced Power Systems Analysis  
ENB453 Power Equipment and Utilisation  
ENB456 Energy  
ENB457 Controls, Systems and Applications  
ENB458 Modern Control Systems

## Year 4, Semester 1

ENB301 Instrumentation and Control  
ENB350 Real-time Computer-based Systems  
INB201 Scalable Systems Development  
IT Specialist Option Unit

## Full-time Course structure – Students commencing in 2009

### Year 1, Semester 1

BEB100 Introducing Professional Learning  
OR  
INB103 Industry Insights  
INB104 Building IT Systems  
MAB131 Engineering Mathematics 1A  
OR  
MAB180 Engineering Mathematics 1B  
PCB136 Engineering Physics 1C

### Year 4, Semester 2

ENB343 Fields, Transmission and Propagation  
ENB344 Industrial Electronics  
ENB345 Advanced Design and Professional Practice  
ENB346 Digital Communications

### Year 1, Semester 2

BEB200 Introducing Sustainability  
ENB103 Electrical Engineering  
INB102 Emerging Technology  
MAB132 Engineering Mathematics 2A  
OR  
MAB182 Engineering Mathematics 2B

### Year 5, Semester 1

BEB701 Work Integrated Learning 1  
BEB801 Project 1  
OR  
INB309-1 Major Project  
INB301 The Business of IT  
IT Specialist Option Unit

### Year 5, Semester 2

BEB802 Project 2  
OR  
INB309-2 Major Project  
IT Specialist Option Unit  
IT Specialist Option Unit  
Electrical Engineering Selective

## Electrical Engineering Selectives

ENB231	Materials and Manufacturing 1
ENB334	Design For Manufacturing
ENB350	Real-time Computer-based Systems
ENB352	Communication Environments For Embedded Systems
ENB436	Mechatronics System Design
ENB440	RF and Applied Electromagnetics
ENB441	Applied Image Processing
ENB445	RF Communication Technologies
ENB446	Wireless Communications
ENB448	Signal Processing and Filtering
ENB452	Advanced Power Systems Analysis
ENB453	Power Equipment and Utilisation
ENB454	Power System Management
ENB455	Power Electronics
ENB456	Energy
ENB457	Controls, Systems and Applications
ENB458	Modern Control Systems
INB353	Wireless and Mobile Networks
INB860	Computational Intelligence for Control and Embedded Systems

## IT Breadth Option Unit List

### IT Breadth Option Units

You must complete four (4) units from the following list. You should not commence these units until you have completed INB101, INB102, INB103 and INB104.

INB120	Corporate Systems
INB210	Databases
INB220	Business Analysis
INB250	Systems Architecture
INB251	Networks
INB255	Security
INB270	Programming
INB271	The Web
INB272	Interaction Design

## IT Specialisation Option Unit List

### IT Specialist Option Units

You must complete four (4) units from the following list. Please ensure you have completed a minimum of 36 credit points (3 units) of IT Breadth Option Units before commencing these units. The units are grouped in areas to assist you in focusing your studies.

1.	BUSINESS PROCESS MANAGEMENT:
INB320	Business Process Modelling
INB321	Business Process Management

INB322	Information Systems Consulting
INB123	Project Management Practice
2.	DATA WAREHOUSING:
INB340	Database Design
INB341	Software Development With Oracle
INB342	Enterprise Data Mining
INB343	Advanced Data Mining and Data Warehousing
	Please note: INB343 not offered in 2010
3.	DIGITAL ENVIRONMENTS:
INB345	Mobile Devices
INB346	Enterprise 2.0
INB347	Web 2.0 Applications
INB335	Information Resources
4.	ENTERPRISE SYSTEMS:
INB123	Project Management Practice
INB221	Technology Management
INB311	Enterprise Systems
INB312	Enterprise Systems Applications
5.	NETWORK SYSTEMS:
INB350	Internet Protocols and Services
INB351	Computer Network Administration
INB352	Network Planning and Deployment
INB353	Wireless and Mobile Networks
6.	SOFTWARE ENGINEERING:
INB370	Software Development
INB371	Data Structures and Algorithms
INB372	Agile Software Development
INB374	Enterprise Software Architecture
7.	WEB TECHNOLOGIES:
INB313	Electronic Commerce Site Development
INB373	Web Application Development
INB374	Enterprise Software Architecture
INB385	Multimedia Systems
INB386	Advanced Multimedia Systems
8.	UNGROUPED:
INB204	Special Topic 1
INB205	Special Topic 2
INB304	Special Topic 3
INB305	Special Topic 4
INB306	Project 1
INB307	Project 2
INB308	Project 3
INB355	Cryptology and Protocols
INB365	Systems Programming
INB860	Computational Intelligence for Control and Embedded Systems

Please note:

INB343 & INB323 are not offered in 2010

## Graduate Certificate in Research Commercialisation (IX97)

**Year offered:** 2010

**Admissions:** Yes

**Course duration (full-time):** 1 semester. Subject to maximum time limit of 4 years.

**Course duration (part-time):** 2 semesters. Subject to maximum time limit of 4 years.

**Domestic fees (indicative):** 2010: \$9,600 per semester

**International Fees (indicative):** 2010: \$10,800 (indicative) per semester

**Course coordinator:** Professor Rod Wissler

**Campus:** Internet

### course structure

#### Course structure

IFP100	Knowledge Transfer and Research Commercialisation
IFP101	Leadership and Workplace Communication
IFP102	Project Management and Research
IFP103	Public Policy and Research
IFP104	Entrepreneurial Foundations
IFP106	Managing Research Careers
IFP105	Principles and Practice of Research Management
IFP107	Global Sustainability
IFP108	Strategic Issues in Research Management

### Potential Careers:

Academic, Administrator, Arts Administrator, Biochemist, Bioengineer, Bioinformatician, Biologist, Biomechanical Engineer, Biomedical Engineer, Biotechnologist, Biotechnology Business/Investment Analyst, Business Analyst, Business Development Officer, Cell Biologist, Civil Engineer, Contract Administrator, Financial Advisor/Analyst, Government Officer, International Business Specialist, Marine Scientist, Market Research Manager, Marketing Officer/Manager, Mathematician, Microbiologist, Policy Officer, Public Servant, Scientist, Social Scientist, Urban Designer, Visual Artist, Web Designer.

## Master of Research and Development Management (IX99)

**Year offered:** 2010

**Admissions:** Yes

**Course duration (full-time):** 3 semesters.

**Course duration (part-time):** 6 semesters.

**Domestic fees (indicative):** 2010: \$9,600 per semester

**International Fees (indicative):** 2010: \$10,800 per semester

**Course coordinator:** Professor Rod Wissler

**Campus:** Internet

### Entry Requirements

The minimum entry requirement for this course is a four year undergraduate degree or three years plus either an honours year or postgraduate coursework year in any discipline. Applicants who do not meet these academic requirements may be eligible to enter the course on the basis of professional activities completed in research management, research commercialisation or related fields that satisfies the course coordinator.

### Important Note

This course is an online course and there is no requirement for a face to face session.

### Course Enquiries

research.enrolment@qut.edu.au

This course is offered jointly by the 5 ATN universities - Curtin University of Technology ; Queensland University of Technology; RMIT University; University of South Australia ; University of Technology Sydney

### Full-time students

Full-time students should enrol in IFP100, IFP105, IFP108, IFP109, IFP110 and 7 other units to complete 144 credit points in three semesters.

### Part-time students

Part- time students can enrol in one or two units per semester for up to six semesters maximum.

### Early Exit Options

Graduate Certificate and Diploma exit points are available following completion of four and eight units.

### Advanced Standing

Students with appropriate prior qualifications and/or professional experience may apply for advanced standing of up to 48CP towards the Master of R&D Management.

Recognition for concurrent Professional Development activities may be possible. Registered members of professional societies may be eligible to receive advanced standing for approved professional development activities completed during enrolment in the award.

### Concurrent Enrolment

Research students are allowed to enrol concurrently in the Graduate Certificate and in their research course subject to the approval of the Research Degrees Committee.

Research students may apply for leave of absence from their research course for the period of full time enrolment in the Graduate Certificate.

For further information relating to enrolment into a Research and Development Course, including pathways, please refer to Research and Development Courses - Enrolment website

### Course structure

IFP110	
IFP100	Knowledge Transfer and Research Commercialisation
IFP101	Leadership and Workplace Communication
IFP102	Research Project Management
IFP103	Public Policy and Research
IFP104	Entrepreneurial Foundations
IFP105	Principles and Practice of Research and Development Management
IFP106	Managing Research Careers
IFP107	Global Sustainability
IFP108	Strategic Issues in Research and Development Management
IFP109	Contexts for Research and Development Management
IFP110	Research & Development Management Project 1
IFP111	Research & Development Management Project 1

### Potential Careers:

Academic, Administrator, Biochemist, Bioengineer, Bioinformatician, Biologist, Biomechanical Engineer, Biomedical Engineer, Biotechnologist, Biotechnology Business/Investment Analyst, Business Analyst, Business Development Officer, Cell Biologist, Civil Engineer, Contract Administrator, Financial Advisor/Analyst, Government Officer, International Business Specialist, Marine Scientist, Market Research Manager, Marketing Officer/Manager, Mathematician, Microbiologist, Policy Officer, Public Servant, Scientist, Social Scientist, Urban Designer, Visual Artist, Web Designer.



**Advanced Diploma in Engineering  
(Mechanical)/Bachelor of Technology  
(Mechanical) (ME37)**

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 020303G

**Course duration (full-time):** 3 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** This course is no longer offered

**Past rank cut-off:** 52 BNIT-Gateway; 50 MIT-Mt Gravatt; 50 YIT-Yeronga

**Past OP cut-off:** 22 BNIT-Gateway; 24 MIT-Mt Gravatt; 24 YIT-Yeronga

**Total credit points:** 288 (including 120 cp advanced standing)

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Vladis Kosse

**Campus:** Gardens Point

**Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

**Further Information**

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email:  
bee.enquiries@qut.com

**Potential Careers:**

Mechanical Engineer, Technical Officer.

## **Bachelor of Engineering (Infomechatronics) (ME40)**

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative)  
per semester

**International Fees (indicative):** 2010: \$11,500 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students  
only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing  
students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412502

**Past rank cut-off:** 80. Admission to this course is based on  
prior study entry requirements in addition to a rank. Please  
refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Gary Chadwick

**Campus:** Gardens Point

### **Special Note**

This course has been discontinued. Any remaining students  
should seek advice from the Course Coordinator regarding  
their remaining course program.

### **Further Information**

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email:  
[bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### **Potential Careers:**

Manager, Manufacturer, Mechanical Engineer.

## Bachelor of Engineering (Mechanical)

### (ME41)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$12,000 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412502

**Past rank cut-off:** 80. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Gary Chadwick

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### Further Information

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Mechanical Engineer.

**Bachelor of Engineering (Mechanical)  
Conversion Program from Bachelor of  
Technology ME36/ME37 (ME41)**

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 1.5 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative)  
per semester

**International Fees (indicative):** 2010: \$12,000 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students  
only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing  
students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412502

**Past rank cut-off:** 80. Admission to this course is based on  
prior study entry requirements in addition to a rank. Please  
refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 144

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Gary Chadwick

**Campus:** Gardens Point

**Special Note**

This course has been discontinued. Any remaining students  
should seek advice from the Course Coordinator regarding  
their remaining course program.

**Further information**

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email:  
bee.enquiries@qut.com

**Potential Careers:**

Engineering Technologist, Mechanical Engineer, Technical  
Officer.

## **Bachelor of Engineering (Mechanical)**

### **(ME42)**

**Year offered:** 2010

**Admissions:** No

**CRICOS code:** 018769C

**Domestic fees (indicative):** 2009: CSP \$3,188 (indicative) per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

#### **Special Note**

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

#### **Further Information**

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

## Bachelor of Engineering (Medical)

### (ME48)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2009: CSP \$3,706 (indicative)  
per semester

**International Fees (indicative):** 2009: \$11,250 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412502

**Past rank cut-off:** 80. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Course coordinator:** Dr R.Mahalinga-Iyer

**Discipline coordinator:** Dr Gary Chadwick

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### Further Information

Phone +61 7 3138 1993, Fax +61 7 3138 1516, email:  
bee.enquiries@qut.com

### Potential Careers:

Bioengineer, Biomedical Engineer, Medical Engineer, Rehabilitation Engineer.



## Bachelor of Surveying (PS47)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative)  
per semester

**International Fees (indicative):** 2010: \$11,500 (indicative)  
per semester

**Domestic Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**International Entry:** This course is open to continuing students only. NO NEW OFFERS MADE AFTER 2005.

**QTAC code:** 412532

**Past rank cut-off:** 72. Admission to this course is based on prior study entry requirements in addition to a rank. Please refer to Additional Admission Information.

**OP Guarantee:** Yes

**Total credit points:** 384

**Course coordinator:** Dr John Hayes

**Discipline coordinator:** Mr Robert Webb

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### Further Information

Phone +61 7 3138 2678, Fax +61 7 3138 1515,  
email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Mapping Scientist/Photogrammetrist, Surveyor.

## Graduate Diploma in Landscape

### Architecture (PS66)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 1 year BBlT Env (L'scape Arch) graduates; 2 years other graduates

**Course duration (part-time):** 2 years BBlT Env (L'scape Arch) graduates; 4 years (other graduates)

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$10,750 (indicative) per semester

**Domestic Entry:** This course is open to continuing BN31 Graduates only. NO NEW OFFERS WILL BE MADE AFTER FEBRUARY 2008.

**International Entry:** This course is open to continuing BN31 Graduates only. NO NEW OFFERS WILL BE MADE AFTER FEBRUARY 2008.

**Total credit points:** 192

**Course coordinator:** Professor Jay Yang (Please refer all course enquiries to Course Leader.)

**Discipline coordinator:** Dr Kathi Holt-Damant (Course Leader)

**Campus:** Gardens Point

#### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

#### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

#### Potential Careers:

Landscape Architect.

## Graduate Diploma in Urban and Regional Planning (PS72)

**Year offered:** 2010

**Admissions:** No

**Course duration (full-time):** 1 year for Bachelor of Built Environment graduates; 1.5 years for other graduates

**Course duration (part-time):** 75% progression: 1.5 years for Bachelor of Built Environment graduates; 2 years for other graduates/50% progression: 2 years for Bachelor of Built Environment graduates; 2.5 years for other graduates

**Domestic fees (indicative):** 2010: CSP \$3,800 (indicative) per semester

**International Fees (indicative):** 2010: \$10,750 (indicative) per semester

**Domestic Entry:** This course is open to continuing BN31 Graduates only. NO NEW OFFERS WILL BE MADE AFTER FEBRUARY 2008.

**International Entry:** This course is open to continuing BN31 Graduates only. NO NEW OFFERS WILL BE MADE AFTER FEBRUARY 2008.

**Total credit points:** 168

**Course coordinator:** Professor Jay Yang (Please refer all course enquiries to Course Leader.)

**Discipline coordinator:** Dr Tan Yigitcanlar (Course Leader)

**Campus:** Gardens Point

### Special Note

This course has been discontinued. Any remaining students should seek advice from the Course Coordinator regarding their remaining course program.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Potential Careers:

Urban and Regional Planner.

## **Bachelor of Urban Development (UD40)**

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 056387B

**Course duration (full-time):** 4 years

**Domestic fees (indicative):** 2010: CSP \$3,700 (indicative)  
per semester

**International Fees (indicative):** 2010: \$10,750 (indicative)  
per semester

**Domestic Entry:** February

**International Entry:** February

**OP Guarantee:** Yes

**Total credit points:** 384

**Standard credit points per full-time semester:** 48

**Course coordinator:** Dr John Hayes

## Bachelor of Urban Development (Construction Management) (UD40)

Year offered: 2010

Admissions: Yes

CRICOS code: 056387B

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,700 (indicative) per semester

International Fees (indicative): 2010: \$10,750 (indicative) per semester

Domestic Entry: February and July

International Entry: February and July

QTAC code: 412312

Past rank cut-off: 79

Past OP cut-off: 11

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths A, B or C (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr John Hayes

Discipline coordinator: Ms Debra Smit

Campus: Gardens Point

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Overview

The course is concerned with the management of the overall process of construction projects and provides detailed understanding of project development from conception, through planning and construction to commissioning and maintenance. It develops skills in how to manage people, materials, equipment and plant while focusing on issues such as cost, time, quality, safety and environment. It educates students to become effective construction managers with comprehensive technological knowledge, management principles and communication skills.

### Career Outcomes

Graduates employed in the construction process are involved in the coordinating of the construction and maintenance of large building projects, the development of government and corporate policies, the administration of regulations, and the development and research of building systems and products. They may be employed in private

organisations such as large construction and development companies or consultancies, while some are employed by government departments.

### Minors

For accreditation purposes you are required to undertake specified minors which will include employment practice. Please refer to your study rules before making your selection.

### CONSTRUCTION MANAGEMENT Minor Options

- All students must take the Construction Management Applications Minor, which is an AIB accreditation requirement.
- Your second minor may be taken from anywhere in QUT but must be from outside UD40. The BEE Project Collaboration Minor is highly recommended for students in Construction Management.

### Special Course Requirements

All students are required to obtain a minimum of 80 days of approved industrial experience.

### Professional Recognition

Recognition is being sought from the Australian Institute of Building and the Australian Institute of Building Surveyors.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

School of Urban Development - Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course Structure - Commencing February 2010 onwards

#### Year 1 - Semester 1

UDB100	Introducing Professional Learning
UDB101	Stewardship of Land

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

UDB110 Residential Construction and Engineering  
 UDB111 Engineering Construction Materials

## Year 1- Semester 2

UDB200 Introducing Sustainability  
 UDB104 Urban Development Economics  
 UDB112 Professional Studies 1  
 UDB113 Measurement 1

## Year 2 - Semester 1

UDB210 Commercial Construction and Engineering  
 UDB211 Introductory Structural Engineering  
 UDB212 Measurement 2  
 UDB213 Construction Estimating

## Year 2 - Semester 2

UDB102 Applied Law  
 UDB214 Professional Studies 2  
 UDB215 Building Services Engineering  
 Minor unit

## Year 3 - Semester 1

UDB310 Highrise Construction and Engineering  
 UDB311 Structural Engineering Design  
 UDB312 Contract Administration  
 Minor unit

## Year 3 - Semester 2

UDB202 Business Skills  
 UDB314 Statutory Construction Law  
 UDB420 Project Administration  
 Minor unit

## Year 4 - Semester 1

BEB701 Work Integrated Learning 1  
 UDB301 Research Methods  
 UDB313 Programming and Scheduling  
 Minor unit

## Year 4 - Semester 2

BEB801 Project 1  
 UDB302 Development Process  
 UDB316 Cost Planning and Control  
 UDB410 Construction Management

## Minor Options

Please refer to the Minor information under Course Summary.

## Full-time Course Structure - Commencing Mid-Year 2010 onwards

### Year 1 - Semester 2

UDB200 Introducing Sustainability  
 UDB102 Applied Law  
 UDB104 Urban Development Economics  
 UDB202 Business Skills

### Year 2 - Semester 1

UDB100 Introducing Professional Learning  
 UDB110 Residential Construction and Engineering  
 UDB111 Engineering Construction Materials  
 UDB211 Introductory Structural Engineering

### Year 2- Semester 2

UDB112 Professional Studies 1  
 UDB113 Measurement 1  
 UDB215 Building Services Engineering  
 Minor Unit

### Year 3 - Semester 1

UDB210 Commercial Construction and Engineering  
 UDB212 Measurement 2  
 UDB213 Construction Estimating  
 UDB310 Highrise Construction and Engineering

### Year 3 - Semester 2

UDB214 Professional Studies 2  
 UDB314 Statutory Construction Law  
 UDB420 Project Administration  
 Minor Unit

### Year 4 - Semester 1

BEB701 Work Integrated Learning 1  
 UDB101 Stewardship of Land  
 UDB301 Research Methods  
 UDB311 Structural Engineering Design

### Year 4 - Semester 2

BEB801 Project 1  
 UDB302 Development Process  
 UDB316 Cost Planning and Control  
 UDB410 Construction Management

### Year 5 - Semester 1

UDB312 Contract Administration  
 UDB313 Programming and Scheduling  
 Minor Unit  
 Minor Unit

### Minor Options

Please refer to Minors information in Course Summary.

## Full-time Course Structure - Commencing February 2008 & 2009



## Year 1 - Semester 1

BEB100	Introducing Professional Learning
UDB101	Stewardship of Land
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

## Year 1- Semester 2

BEB200	Introducing Sustainability
UDB104	Urban Development Economics
UDB112	Professional Studies 1
UDB113	Measurement 1

## Year 2 - Semester 1

UDB210	Commercial Construction and Engineering
UDB211	Introductory Structural Engineering
UDB212	Measurement 2
UDB213	Construction Estimating

## Year 2 - Semester 2

UDB102	Applied Law
UDB214	Professional Studies 2
UDB215	Building Services Engineering
	Minor unit

## Year 3 - Semester 1

UDB310	Highrise Construction and Engineering
UDB311	Structural Engineering Design
UDB312	Contract Administration
	Minor unit

## Year 3 - Semester 2

UDB202	Business Skills
UDB314	Statutory Construction Law
UDB420	Project Administration
	Minor unit
	PLEASE NOTE: Up until the end of 2010, CNB408 and CNB425 were an alternative to UDB420, and will count towards your degree.

## Year 4 - Semester 1

BEB701	Work Integrated Learning 1
UDB301	Research Methods
UDB313	Programming and Scheduling
	Minor unit

## Year 4 - Semester 2

BEB801	Project 1
UDB302	Development Process
UDB316	Cost Planning and Control
UDB410	Construction Management

## Minor Options

Please refer to the Minor information under Course Summary.

## Full-time Course Structure - Commencing February 2006 & 2007

### Year 1 - Semester 1

BEB100	Introducing Professional Learning
UDB101	Stewardship of Land
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

### Year 1- Semester 2

BEB200	Introducing Sustainability
UDB104	Urban Development Economics
UDB112	Professional Studies 1
UDB113	Measurement 1

### Year 2 - Semester 1

UDB210	Commercial Construction and Engineering
UDB211	Introductory Structural Engineering
UDB212	Measurement 2
UDB213	Construction Estimating

### Year 2 - Semester 2

UDB102	Applied Law
UDB202	Business Skills
UDB215	Building Services Engineering
	Minor Unit

### Year 3 - Semester 1

UDB310	Highrise Construction and Engineering
UDB311	Structural Engineering Design
UDB312	Contract Administration
	Minor Unit

### Year 3 - Semester 2

UDB214	Professional Studies 2
UDB314	Statutory Construction Law
	Minor Unit
	Minor Unit

### Year 4 - Semester 1

UDB301	Research Methods
UDB313	Programming and Scheduling
	Minor Unit
	Minor Unit

### Year 4 - Semester 2

UDB302	Development Process
UDB410	Construction Management

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

Minor Unit  
Minor Unit

UDB312 Contract Administration  
UDB313 Programming and Scheduling  
Minor Unit  
Minor Unit

## Minor Options

Please refer to the Minor information under Course Summary.

## Minor Options

Please refer to Minors information in Course Summary.

## Full-time Course Structure - Commencing Mid-Year 2007 & 2008

### Year 1 - Semester 2

BEB200 Introducing Sustainability  
UDB102 Applied Law  
UDB104 Urban Development Economics  
UDB202 Business Skills

### Year 2 - Semester 1

BEB100 Introducing Professional Learning  
UDB110 Residential Construction and Engineering  
UDB111 Engineering Construction Materials  
UDB211 Introductory Structural Engineering

### Year 2- Semester 2

UDB112 Professional Studies 1  
UDB113 Measurement 1  
UDB215 Building Services Engineering  
Minor Unit

### Year 3 - Semester 1

UDB210 Commercial Construction and Engineering  
UDB212 Measurement 2  
UDB213 Construction Estimating  
UDB310 Highrise Construction and Engineering

### Year 3 - Semester 2

UDB214 Professional Studies 2  
UDB314 Statutory Construction Law  
Minor Unit  
Minor Unit

### Year 4 - Semester 1

UDB101 Stewardship of Land  
UDB301 Research Methods  
UDB311 Structural Engineering Design  
Minor Unit

### Year 4 - Semester 2

UDB302 Development Process  
UDB410 Construction Management  
Minor Unit  
Minor Unit

### Year 5 - Semester 1

## Full-time Course Structure - Commencing Mid-Year 2006

### Year 1 - Semester 2

BEB100 Introducing Professional Learning  
BEB200 Introducing Sustainability  
UDB102 Applied Law  
UDB104 Urban Development Economics

### Year 2 - Semester 1

UDB101 Stewardship of Land  
UDB110 Residential Construction and Engineering  
UDB111 Engineering Construction Materials  
UDB211 Introductory Structural Engineering

### Year 2- Semester 2

UDB112 Professional Studies 1  
UDB113 Measurement 1  
UDB215 Building Services Engineering  
Minor Unit

### Year 3 - Semester 1

UDB210 Commercial Construction and Engineering  
UDB212 Measurement 2  
UDB213 Construction Estimating  
UDB310 Highrise Construction and Engineering

### Year 3 - Semester 2

UDB214 Professional Studies 2  
UDB314 Statutory Construction Law  
Minor Unit  
Minor Unit

### Year 4 - Semester 1

UDB301 Research Methods  
UDB311 Structural Engineering Design  
Minor Unit  
Minor Unit

### Year 4 - Semester 2

UDB202 Business Skills  
UDB302 Development Process  
UDB410 Construction Management

Minor Unit

Year 5 - Semester 1

UDB312 Contract Administration

UDB313 Programming and Scheduling

Minor Unit

Minor Unit

Minor Options

Please refer to the Minor information under Course Summary.

**Potential Careers:**

Construction Manager, Contract Administrator, Estimator, Project Manager, Urban and Regional Planner, Urban Designer.

## Bachelor of Urban Development (Property Economics) (UD40)

Year offered: 2010

Admissions: Yes

CRICOS code: 056387B

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,700 (indicative) per semester

International Fees (indicative): 2010: \$10,750 (indicative) per semester

Domestic Entry: February

International Entry: February

QTAC code: 412322

Past rank cut-off: 77

Past OP cut-off: 12

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths A, B or C (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr John Hayes

Discipline coordinator: Dr Connie Susilawati (as of July 2010 - previously Dr Bwembya Chikolwa)

Campus: Gardens Point

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Overview

This course is concerned with all aspects of property - investment, asset management, development, valuation and research - with a focus on finance and on the commercial property market sector.

### Special Course Requirements

You are required to obtain a minimum of 30 days approved professional work experience.

### Professional Recognition

The 4 year degree has professional recognition from the Australian Property Institute, the Valuers' Registration Board of Queensland, and from the Royal Institution of Chartered Surveyors.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the

specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Second Majors and Minors

In your final two years you will have the opportunity to undertake a major (8 units) or 2 minors (4 units each) from other areas of interest. Please refer to your course rules before making your selection.

### PROPERTY ECONOMICS Second Major and Minor Options

Second Major:

A second major from anywhere in QUT

Minors:

Two minors from anywhere in QUT. Remember if you take two Minors one Minor must be from outside of your course.

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

School of Urban Development - Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course Structure - Commencing February 2010 onwards

#### Year 1 - Semester 1

UDB100	Introducing Professional Learning
UDB101	Stewardship of Land
UDB110	Residential Construction and Engineering
UDB140	Property Valuation 1

#### Year 1- Semester 2

UDB200	Introducing Sustainability
UDB102	Applied Law
UDB104	Urban Development Economics
UDB141	Building Studies

#### Year 2 - Semester 1

UDB240	Planning Theory and Processes
UDB241	Property Law 1
UDB242	Property Valuation 2
UDB243	Property Economics

#### Year 2 - Semester 2

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

UDB244 Property Law 2  
 UDB245 Urban Land Studies  
 UDB246 Property Feasibility Studies  
 UDB247 Property Valuation 3

## Year 3 - Semester 1

UDB301 Research Methods  
 UDB341 Property Finance  
     Second Major/Minor unit  
     Second Major/Minor unit

## Year 3 - Semester 2

UDB302 Development Process  
 UDB344 Property and Asset Management  
     Second Major/Minor unit  
     Second Major/Minor unit

## Year 4 - Semester 1

UDB340 Agency Practice and Marketing  
 UDB342 Real Estate Accounting and Taxation  
     Second Major/Minor unit  
     Second Major/Minor unit

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1  
 UDB202 Business Skills  
     Second Major/Minor unit  
     Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Full-time Course Structure - Commencing February 2006 - 2009

### Year 1 - Semester 1

BEB100 Introducing Professional Learning  
 UDB101 Stewardship of Land  
 UDB110 Residential Construction and Engineering  
 UDB140 Property Valuation 1

### Year 1- Semester 2

BEB200 Introducing Sustainability  
 UDB102 Applied Law  
 UDB104 Urban Development Economics  
 UDB141 Building Studies

### Year 2 - Semester 1

UDB240 Planning Theory and Processes  
 UDB241 Property Law 1  
 UDB242 Property Valuation 2

UDB243 Property Economics

## Year 2 - Semester 2

UDB244 Property Law 2  
 UDB245 Urban Land Studies  
 UDB246 Property Feasibility Studies  
 UDB247 Property Valuation 3

## Year 3 - Semester 1

UDB301 Research Methods  
 UDB341 Property Finance  
     Second Major/Minor unit  
     Second Major/Minor unit

## Year 3 - Semester 2

UDB302 Development Process  
 UDB344 Property and Asset Management  
     Second Major/Minor unit  
     Second Major/Minor unit

## Year 4 - Semester 1

UDB340 Agency Practice and Marketing  
 UDB342 Real Estate Accounting and Taxation  
     Second Major/Minor unit  
     Second Major/Minor unit

## Year 4 - Semester 2

BEB701 Work Integrated Learning 1  
 UDB202 Business Skills  
     Second Major/Minor unit  
     Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Potential Careers:

Project Developer, Project Manager, Property Development, Property Economist, Property Management, Real Estate.

## Bachelor of Urban Development (Quantity Surveying) (UD40)

Year offered: 2010

Admissions: Yes

CRICOS code: 056387B

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,700 (indicative) per semester

International Fees (indicative): 2010: \$10,750 (indicative) per semester

Domestic Entry: February

International Entry: February

QTAC code: 412312

Past rank cut-off: 77

Past OP cut-off: 12

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths A, B or C (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr John Hayes

Discipline coordinator: Dr Johnny Wong

Campus: Gardens Point

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Overview

The course prepares students to work as quantity surveyors or building economists. The course covers building management, cost planning and control, building development techniques, building research, computer software application, measurement of construction, and legal issues. **Applicants will be initially enrolled in the Bachelor of Urban Development (Construction Management) but will be directed to take suitable units to graduate with a Quantity Surveying primary major.**

### Special Course Requirements

You are required to gain a minimum of 80 days of approved employment in the final year of the course.

### Professional Recognition

This course is fully accredited by the Australian Institute of Quantity Surveyors, The Royal Institution of Chartered Surveyors (Honours version only), and the Board of Quantity Surveyors Malaysia (with Property Economics

second major).

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Second Majors and Minors

You will have the opportunity to undertake a second major (8 units) or 2 minors (4 units each) to enhance and broaden your knowledge in a related field or area of interest.

Please refer to your course rules before making your selection.

### QUANTITY SURVEYING Second Major and Minor Options

#### Second Major:

*Choose one second major from the following options:*

Property Economics Development  
Property Economics Investment  
Property Economics Valuation  
Urban and Regional Planning  
Architectural Studies

OR

#### Minors:

*Choose two minors from the following options. Remember, if you take two Minors, one Minor must be from outside your course:*

Property Economics Development  
Property Economics Investment  
Property Economics Valuation  
Urban and Regional Planning  
Architectural Studies  
BEE Work Integrated Learning Minor  
BEE Sustainability Minor  
BEE International Minor  
BEE Indigenous Studies Minor  
BEE Research Minor  
BEE Project Collaboration Minor  
BEE Collaborative Digital Design Minor  
A minor from anywhere in QUT

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.



**Further Information**

School of Urban Development - Phone +61 7 3138 2678,  
Fax +61 7 3138 1515, email: bee.enquiries@qut.com

**Full-time Course Structure - Commencing February 2010 onwards**

**Year 1 - Semester 1**

- UDB100 Introducing Professional Learning
- UDB101 Stewardship of Land
- UDB110 Residential Construction and Engineering
- UDB111 Engineering Construction Materials

**Year 1- Semester 2**

- UDB200 Introducing Sustainability
- UDB104 Urban Development Economics
- UDB112 Professional Studies 1
- UDB113 Measurement 1

**Year 2 - Semester 1**

- UDB210 Commercial Construction and Engineering
- UDB212 Measurement 2
- UDB213 Construction Estimating
- UDB216 The Environment and the Quantity Surveyor

**Year 2 - Semester 2**

- UDB102 Applied Law
- UDB202 Business Skills
- UDB215 Building Services Engineering  
Second Major/Minor unit

**Year 3 - Semester 1**

- UDB310 Highrise Construction and Engineering
- UDB312 Contract Administration
- UDB315 Measurement 3  
Second Major/Minor unit

**Year 3 - Semester 2**

- UDB314 Statutory Construction Law
- UDB316 Cost Planning and Control  
Second Major/Minor unit  
Second Major/Minor unit

**Year 4 - Semester 1**

- BEB701 Work Integrated Learning 1
- UDB301 Research Methods  
Second Major/Minor unit  
Second Major/Minor unit

**Year 4 - Semester 2**

- BEB801 Project 1

- UDB302 Development Process  
Second Major/Minor unit  
Second Major/Minor unit

**Second Major and Minor Options**

Please refer to Second Major and Minor information under Course Summary.

**Full-time Course Structure - Commencing February 2006 - 2009**

**Year 1 - Semester 1**

- BEB100 Introducing Professional Learning
- UDB101 Stewardship of Land
- UDB110 Residential Construction and Engineering
- UDB111 Engineering Construction Materials

**Year 1- Semester 2**

- BEB200 Introducing Sustainability
- UDB104 Urban Development Economics
- UDB112 Professional Studies 1
- UDB113 Measurement 1

**Year 2 - Semester 1**

- UDB210 Commercial Construction and Engineering
- UDB212 Measurement 2
- UDB213 Construction Estimating
- UDB216 The Environment and the Quantity Surveyor

**Year 2 - Semester 2**

- UDB102 Applied Law
- UDB202 Business Skills
- UDB215 Building Services Engineering  
Second Major/Minor unit

**Year 3 - Semester 1**

- UDB310 Highrise Construction and Engineering
- UDB312 Contract Administration
- UDB315 Measurement 3  
Second Major/Minor unit

**Year 3 - Semester 2**

- UDB314 Statutory Construction Law
- UDB316 Cost Planning and Control  
Second Major/Minor unit  
Second Major/Minor unit

**Year 4 - Semester 1**

- BEB701 Work Integrated Learning 1
- UDB301 Research Methods  
Second Major/Minor unit  
Second Major/Minor unit

## Year 4 - Semester 2

BEB801	Project 1
UDB302	Development Process
	Second Major/Minor unit
	Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

### Full-time Course Structure - Commencing Mid-Year 2007 & 2008

## Year 1 - Semester 2

BEB200	Introducing Sustainability
UDB102	Applied Law
UDB104	Urban Development Economics
UDB202	Business Skills

## Year 2 - Semester 1

BEB100	Introducing Professional Learning
UDB101	Stewardship of Land
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials

## Year 2 - Semester 2

UDB112	Professional Studies 1
UDB113	Measurement 1
UDB215	Building Services Engineering
	Second Major/Minor unit

## Year 3 - Semester 1

UDB210	Commercial Construction and Engineering
UDB212	Measurement 2
UDB216	The Environment and the Quantity Surveyor
UDB310	Highrise Construction and Engineering

## Year 3 - Semester 2

UDB314	Statutory Construction Law
UDB316	Cost Planning and Control
	Second Major/Minor unit
	Second Major/Minor unit

## Year 4 - Semester 1

BEB701	Work Integrated Learning 1
UDB213	Construction Estimating
UDB301	Research Methods
UDB315	Measurement 3

## Year 4 - Semester 2

BEB801	Project 1
UDB302	Development Process

Second Major/Minor unit

Second Major/Minor unit

## Year 5 - Semester 1

UDB312	Contract Administration
	Second Major/Minor unit
	Second Major/Minor unit
	Second Major/Minor unit

## Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

### Full-time Course Structure - Commencing Mid-Year 2006

## Year 1 - Semester 2

BEB100	Introducing Professional Learning
BEB200	Introducing Sustainability
UDB102	Applied Law
UDB104	Urban Development Economics

## Year 2 - Semester 1

UDB101	Stewardship of Land
UDB110	Residential Construction and Engineering
UDB111	Engineering Construction Materials
UDB210	Commercial Construction and Engineering

## Year 2 - Semester 2

UDB112	Professional Studies 1
UDB113	Measurement 1
UDB215	Building Services Engineering
	Second Major/Minor unit

## Year 3 - Semester 1

UDB212	Measurement 2
UDB213	Construction Estimating
UDB216	The Environment and the Quantity Surveyor
UDB310	Highrise Construction and Engineering

## Year 3 - Semester 2

UDB202	Business Skills
UDB314	Statutory Construction Law
UDB316	Cost Planning and Control
	Second Major/Minor unit

## Year 4 - Semester 1

BEB701	Work Integrated Learning 1
UDB301	Research Methods
UDB315	Measurement 3
	Second Major/Minor unit

## Year 4 - Semester 2

BEB801 Project 1  
UDB302 Development Process  
Second Major/Minor unit  
Second Major/Minor unit

Year 5 - Semester 1

UDB312 Contract Administration  
Second Major/Minor unit  
Second Major/Minor unit  
Second Major/Minor unit

Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

**Potential Careers:**

Estimator, Manager, Quantity Surveyor.

## Bachelor of Urban Development (Spatial Science) (UD40)

Year offered: 2010

Admissions: Yes

CRICOS code: 056387B

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,700 (indicative) per semester

International Fees (indicative): 2010: \$10,750 (indicative) per semester

Domestic Entry: February

International Entry: February

QTAC code: 412532

Past rank cut-off: 77

Past OP cut-off: 12

OP Guarantee: Yes

Assumed knowledge: English (4, SA) and Maths B (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr John Hayes

Discipline coordinator: Mr Robert Webb

Campus: Gardens Point

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Overview

This degree is a broad-based course. The first year is a foundation year designed to prepare students to deliver practical solutions to problems involving spatial information and decision-making. Students study foundation units such as mathematics, professional studies, sustainability as well as geospatial positioning in their first year. In the following years, the areas covered are boundary and control surveying, topographic mapping, photogrammetry, mine and hydrographic surveying, land development design and geographic information systems.

### Professional Recognition

The course is recognised by Queensland Surveyors Board and the Surveying and Spatial Science Institute of Australia (SSSI).

### Special Course Requirements

You will be required to attend compulsory field practicals off-campus in the Moreton Region and have access to an advanced scientific calculator for use during the course. To

graduate you are required to have at least 90 days of approved industrial experience/practice in a spatial science/surveying environment.

### Minors

For professional recognition you will undertake two minors (a minor is four units or 48 credit points in the same discipline) the first is a Science minor which includes Maths and the second an Applications minor which consists of a Work Integrated Learning unit, a project unit and two specialised spatial science units.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

QUT allows current Year 12 school leavers to defer their undergraduate admission offer for one year, or for six months if offered mid-year admission, except in courses using specific admission requirements such as questionnaires, folios, auditions, prior study or work experience.

Non-year 12 students may also request to defer their QTAC offer on the basis of demonstrated special circumstances.

Find out more on deferment.

### Further Information

School of Urban Development - Phone +61 7 3138 2678, Fax +61 7 3138 1515, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course Structure - Commencing February 2010 onwards

#### Year 1 - Semester 1

UDB100	Introducing Professional Learning
MAB120	Algebra and Calculus
UDB101	Stewardship of Land
UDB181	Geospatial Positioning and GPS

#### Year 1- Semester 2

UDB200	Introducing Sustainability
MAB101	Statistical Data Analysis 1
UDB104	Urban Development Economics
UDB182	Surveying

#### Year 2 - Semester 1

PCB172	Physics for Surveyors
UDB281	Geographic Information Systems
UDB283	Surveying Computations
UDB285	Cadastral Surveying

#### Year 2 - Semester 2

# FACULTY OF BUILT ENVIRONMENT AND ENGINEERING

MAB730 Surveying Mathematics 2  
UDB102 Applied Law  
UDB282 Remote Sensing  
UDB284 Engineering Surveying

MAB730 Surveying Mathematics 2  
UDB102 Applied Law  
UDB282 Remote Sensing  
UDB284 Engineering Surveying

## Year 3 - Semester 1

UDB381 Geospatial Mapping  
UDB383 Control Surveying and Analysis  
UDB385 Cadastral and Land Management  
UDB387 Spatial and Land Information Management

## Year 3 - Semester 1

UDB381 Geospatial Mapping  
UDB383 Control Surveying and Analysis  
UDB385 Cadastral and Land Management  
UDB387 Spatial and Land Information Management

## Year 3 - Semester 2

UDB302 Development Process  
UDB382 Photogrammetric Mapping  
UDB384 Geodesy  
UDB388 Spatial Analysis Practice

## Year 3 - Semester 2

UDB302 Development Process  
UDB382 Photogrammetric Mapping  
UDB384 Geodesy  
UDB388 Spatial Analysis Practice

## Year 4 - Semester 1

BEB701 Work Integrated Learning 1  
UDB301 Research Methods  
UDB483 Global Positioning Principles and Practice  
UDB485 Property Development Practice

## Year 4 - Semester 1

BEB701 Work Integrated Learning 1  
UDB301 Research Methods  
UDB483 Global Positioning Principles and Practice  
UDB485 Property Development Practice

## Year 4 - Semester 2

BEB801 Project 1  
UDB202 Business Skills  
UDB484 Topographic, Hydrographic and Mining Surveying  
UDB486 Cadastral Practice

## Year 4 - Semester 2

BEB801 Project 1  
UDB202 Business Skills  
UDB484 Topographic, Hydrographic and Mining Surveying  
UDB486 Cadastral Practice

## Full-time Course Structure - Commencing February 2006 - 2009

### Year 1 - Semester 1

BEB100 Introducing Professional Learning  
MAB100 Mathematical Sciences 1A  
UDB101 Stewardship of Land  
UDB181 Geospatial Positioning and GPS

### Year 1 - Semester 2

BEB200 Introducing Sustainability  
MAB101 Statistical Data Analysis 1  
UDB104 Urban Development Economics  
UDB182 Surveying

### Year 2 - Semester 1

PCB172 Physics for Surveyors  
UDB281 Geographic Information Systems  
UDB283 Surveying Computations  
UDB285 Cadastral Surveying

### Year 2 - Semester 2

## Potential Careers:

Mapping Scientist/Photogrammetrist, Spatial Information Officer, Surveyor.

## Bachelor of Urban Development (Urban and Regional Planning) (UD40)

Year offered: 2010

Admissions: Yes

CRICOS code: 056387B

Course duration (full-time): 4 years

Domestic fees (indicative): 2010: CSP \$3,700 (indicative) per semester

International Fees (indicative): 2010: \$10,750 (indicative) per semester

Domestic Entry: February

International Entry: February

QTAC code: 412352

Past rank cut-off: 77

Past OP cut-off: 12

OP Guarantee: Yes

Assumed knowledge: English (4, SA)

Preparatory studies: For information on acquiring assumed knowledge visit

<http://www.studentservices.qut.edu.au/apply/ug/info/knowledge.jsp>

Total credit points: 384

Standard credit points per full-time semester: 48

Course coordinator: Dr John Hayes

Discipline coordinator: Dr Severine Mayere (as of July 2010 - previously Mr Paul Donehue)

Campus: Gardens Point

### QUT Entry Bonus Scheme

The QUT Entry Bonus Scheme applies to students completing Year 12 or equivalent in 2009 and applying for entry in 2010.

QUT will award two bonus QTAC ranks for students who successfully complete Maths C or LOTE (Language Other Than English) in secondary school and apply to start a Bachelor of Urban Development at QUT in 2010.

QUT will also award one bonus rank to students who, while at school, successfully complete one or more university-level subjects at any Australian university.

### Overview

This course aims to educate students to become innovative leaders in professional planning, with the capacity and will to create a better world. Graduates will apply perceptive sensibilities and skills to create sustainable natural and human environments. The QUT course emphasises creative design and inclusive community planning. You will have the opportunity to work on live projects with local councils and community groups.

### Professional Recognition

This course has received accreditation from the Planning Institute of Australia.

### Second Major and Minors

You will have the opportunity to undertake a second major (8 units) or 2 minors (4 units each) to broaden your appreciation of fields related to urban and regional planning; for example: landscape architecture, urban design, surveying, property economics, law or business

management.

Please refer your course rules before making your selection.

### URBAN AND REGIONAL PLANNING Second Major and Minor Options

Second Major:

Choose one second major from the following options:

Architectural Studies

Landscape Architecture

Spatial Science

Property Economics Development

Property Economics Investment

Property Economics Valuation

Construction Management

Construction Management Residential Construction

OR

Minors:

Choose two minors from the following options. Remember, if you take two Minors, one Minor must be from outside your course:

### Urban and Regional Planning Applications Minor (accreditation requirement)

Landscape Architecture

Spatial Science

Architectural Studies

Property Economics Development

Property Economics Investment

Property Economics Valuation

BEE Sustainability Minor

BEE International Minor

BEE Indigenous Studies Minor

BEE Research Minor

BEE Project Collaboration Minor

BEE Collaborative Digital Design Minor

A minor from anywhere in QUT

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Deferment

All domestic applicants offered admission to undergraduate award courses may apply to defer commencement of their study. A deferment application will not normally be considered for courses where specific admission requirements apply, for example submission of folios or undertaking auditions. Applicants are not entitled to hold a deferred place and hold a place in another QUT course for the same period.

Find out more on deferment.

### Further Information



School of Urban Development - Phone +61 7 3138 2678,  
Fax +61 7 3138 1515, email: bee.enquiries@qut.com

## Full-time Course Structure - Commencing February 2010 onwards

### Year 1 - Semester 1

UDB100	Introducing Professional Learning
UDB101	Stewardship of Land
UDB161	Introduction to Planning and Design
UDB162	History of Built Environment

### Year 1- Semester 2

UDB200	Introducing Sustainability
UDB104	Urban Development Economics
UDB163	Land Use Planning
UDB164	Population and Urban Studies

### Year 2 - Semester 1

UDB265	Site Planning
UDB266	Planning Processes and Consultations
	Second Major/Minor unit
	Second Major/Minor unit

### Year 2 - Semester 2

UDB102	Applied Law
UDB267	Development Assessment and Infrastructure
	Second Major/Minor unit
	Second Major/Minor unit

### Year 3 - Semester 1

UDB368	Urban Design
UDB369	Negotiation and Conflict Resolution
	Second Major/Minor unit
	Second Major/Minor unit

### Year 3 - Semester 2

UDB302	Development Process
UDB370	Environmental Planning and Management
	Second Major/Minor unit
	Second Major/Minor unit

### Year 4 - Semester 1

UDB301	Research Methods
UDB471	Urban Planning Practice
UDB473	Planning Theory and Ethics
BEB801	Project 1
	OR
BEB802	Project 2

### Year 4 - Semester 2

UDB202	Business Skills
--------	-----------------

UDB472	Community Planning
UDB474	Regional Planning Practice
UDB475	Regional and Metropolitan Policy

### Second Major and Minor Options

Please refer to Second Major and Minor information under Course Summary.

## Full-time Course Structure - Commencing February 2006 - 2009

### Year 1 - Semester 1

BEB100	Introducing Professional Learning
UDB101	Stewardship of Land
UDB161	Introduction to Planning and Design
UDB162	History of Built Environment

### Year 1- Semester 2

BEB200	Introducing Sustainability
UDB104	Urban Development Economics
UDB163	Land Use Planning
UDB164	Population and Urban Studies

### Year 2 - Semester 1

UDB265	Site Planning
UDB266	Planning Processes and Consultations
	Second Major/Minor unit
	Second Major/Minor unit

### Year 2 - Semester 2

UDB102	Applied Law
UDB267	Development Assessment and Infrastructure
	Second Major/Minor unit
	Second Major/Minor unit

### Year 3 - Semester 1

UDB368	Urban Design
UDB369	Negotiation and Conflict Resolution
	Second Major/Minor unit
	Second Major/Minor unit

### Year 3 - Semester 2

UDB302	Development Process
UDB370	Environmental Planning and Management
	Second Major/Minor unit
	Second Major/Minor unit

### Year 4 - Semester 1

UDB301	Research Methods
UDB471	Urban Planning Practice
UDB473	Planning Theory and Ethics
BEB801	Project 1

OR

BEB802 Project 2

**Year 4 - Semester 2**

UDB202 Business Skills

UDB472 Community Planning

UDB474 Regional Planning Practice

UDB475 Regional and Metropolitan Policy

**Second Major and Minor Options**

Please refer to Second Major and Minor information under Course Summary.

**Potential Careers:**

Urban and Regional Planner, Urban Designer.

## Master of Urban Development (Urban and Regional Planning) (UD50)

**Year offered:** 2010

**Admissions:** Yes

**CRICOS code:** 060809F

**Course duration (full-time):** 1 year

**Course duration (part-time):** 2 years

**Domestic fees (indicative):** 2010: Full fee tuition \$8,790 (indicative) per semester

**International Fees (indicative):** 2010: \$10,750 (indicative) per semester

**Domestic Entry:** February and July

**International Entry:** February and July

**Total credit points:** 96

**Standard credit points per full-time semester:** 48

**Course coordinator:** Associate Professor Mark Ho (replacing Prof Jay Yang from September 2010)

**Discipline coordinator:** Dr Tan Yigitcanlar (Course Leader) - Please refer course specific enquiries to Course Leader.

**Campus:** Gardens Point

### Overview

This course aims to enhance and advance the range of knowledge, skills and social understanding required to operate professionally within the urban development context. The course sets practice within the broader socioeconomic and political contexts that influence the development of policy and infrastructure in the built environment. The course is designed to offer graduates the full range of knowledge, skills and social understanding required to become a successful urban and regional planner. Early exit with a Graduate Diploma is available upon completion of two core units and two specialisation units in the course.

### Entry Requirements

A four-year full-time bachelor degree in a relevant urban development discipline area and a grade point average of 5.0 or more (on a 7-point scale) in that study, or an equivalent qualification determined by the Faculty. English language requirements for the course are an English Language Proficiency level in accordance with QUT requirements (IELTS score of 6.0 with no sub-band below 6.0) if English is not your first language. Applicants from a non-relevant background may gain entry through successful completion of BN85, the Graduate Certificate in Built Environment and Engineering.

If requested, supply documentation of professional work experience as detailed in Completing the PG Form.

### Professional Recognition

Students completing the Graduate Certificate in Built Environment and Engineering, with appropriate unit selection, and the Master of Urban Development (Urban and Regional Planning), will be eligible for graduate membership of the Planning Institute of Australia.

### Career Outcomes

Graduates can expect to be in demand in local, state and commonwealth government departments, planning and development enterprises and consultancies, and in the voluntary sector, both in Australia and overseas. Opportunities include development planning and assessment, consultancy within the urban design field, regional planning, plan and policy preparation for land use, environment, housing, transport, recreation, education, community engagement and development, and corporate planning.

### International Student Entry

International students must maintain an enrolment program that will allow them to complete their course within the specified timeframe of their eCoE (electronic Confirmation of Enrolment).

### Advanced Standing

Students completing two Masters courses in the Faculty of Built Environment and Engineering will be eligible to apply for a maximum of 24 credit points advanced standing in the second course on the basis of common units already completed. Such students will be required to complete a minimum of 72cp to be determined in consultation with the nominated Course Leader, to achieve the second Masters.

### Further Information

Faculty of Built Environment and Engineering - Phone +61 7 3138 1433, email: [bee.enquiries@qut.com](mailto:bee.enquiries@qut.com)

### Full-time Course structure - February Entry

#### Year 1, Semester 1

BEN610	Project Management Principles
UDN510	Urban Planning Practice
UDN516	Master Concepts and Ethics Seminar
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
BEN910	Integrated Project
UDN512	Community Planning
UDN514	Regional Planning Practice

### Full-time Course structure - Mid Year Entry

#### Year 1, Semester 2

BEN710	Sustainable Practice in Built Environment and Engineering
UDN512	Community Planning
UDN514	Regional Planning Practice
AMN435	Communication, Negotiation and Leadership OR
GSN235	Communication, Negotiation and Leadership

**Year 2, Semester 1**

- BEN610 Project Management Principles
- BEN910 Integrated Project
- UDN510 Urban Planning Practice
- UDN516 Master Concepts and Ethics Seminar

**Part-time Course structure - February Entry**

**Year 1, Semester 1**

- BEN610 Project Management Principles
- UDN510 Urban Planning Practice

**Year 1, Semester 2**

- UDN512 Community Planning
- UDN514 Regional Planning Practice

**Year 2, Semester 1**

- UDN516 Master Concepts and Ethics Seminar
- AMN435 Communication, Negotiation and Leadership  
OR
- GSN235 Communication, Negotiation and Leadership

**Year 2, Semester 2**

- BEN710 Sustainable Practice in Built Environment and Engineering
- BEN910 Integrated Project

**Part-time Course structure - Mid Year Entry**

**Year 1, Semester 2**

- UDN512 Community Planning
- UDN514 Regional Planning Practice

**Year 2, Semester 1**

- BEN610 Project Management Principles
- UDN510 Urban Planning Practice

**Year 2, Semester 2**

- BEN710 Sustainable Practice in Built Environment and Engineering
- AMN435 Communication, Negotiation and Leadership  
OR
- GSN235 Communication, Negotiation and Leadership

**Year 3, Semester 1**

- BEN910 Integrated Project
- UDN516 Master Concepts and Ethics Seminar

**Potential Careers:**

Urban and Regional Planner.